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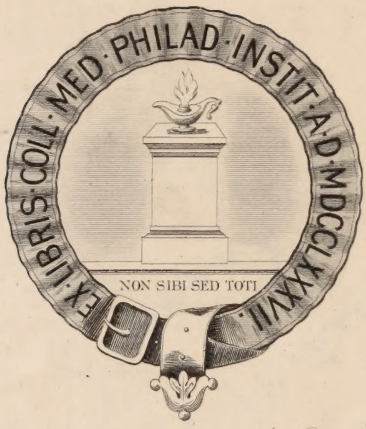

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....THE....

Tri-State Medical Journal.

EDITED AND PUBLISHED BY

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Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons.

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By JAMES MOORES BALL, M.D.

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Vol. III. SAINT LOUIS, JANUARY, 1896. No. 1.

CLINICAL LECTURE.

INFANTILE PARALYSIS.*

BY J. J. M. ANGEAR, A.M., M.D., OF CHICAGO,

Professor of Mental and Nervous Diseases in the College of Physicians and Surgeons, Keokuk, Iowa.

Stenographically Reported for the Tri-State Medical Journal.

MR. PRESIDENT, LADIES AND GENTLEMEN:—

I HAVE selected for this occasion, the subject—INFANTILE PARALYSIS. I have chosen it in this broad manner that I may be able to call to your attention the different kinds of paralysis peculiar to infants and childhood; to point out the causes; the anatomical lesion; to contrast the symptoms, and make the differential diagnosis peculiar to each, and hoping thereby to be able to present it in a profitable light.

We have in infants three kinds of paralysis.

1st. OBSTETRICAL PARALYSIS.

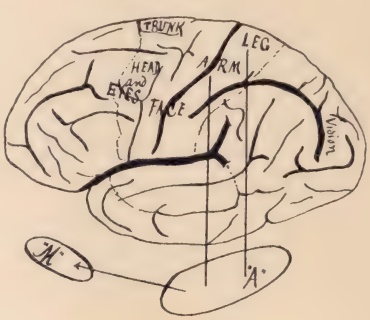
2d. CEREBRAL PARALYSIS OF CHILDREN.

3d. ESSENTIAL PARALYSIS OF INFANTS OR POLIOMYELITIS ANTERIOR.

First. OBSTETRICAL PARALYSIS affects but one arm, generally. It is produced by the delivery of the child, generally in cases of breech presentation. The accoucheur is justly in a great hurry to deliver the head. (A

*A Clinical Lecture before the Eastern Iowa District Medical Society.

similar paralysis may occur in older patients whenever the same nerves are injured from any violence; it is then called brachial or Erb's paralysis.) The face being in the hollow of the sacrum, one hand of the midwife on the face of the child, the other hand on the child's back with first and second fingers separated, thrust forward so that these fingers will be one on each shoulder of the child, and the neck will be between them; and when the fingers are bent so as to form a hook over the shoulders, the tips of the fingers will dip down into the soft parts of the child's neck, and the longer finger will reach farther and make pressure upon and injure the brachial plexus, causing paralysis of the child's arm in proportion to the damage done to the nerves by the tips of the fingers of the accoucheur. The second finger being the longer, reaches farther forward, and, unless care is exercised, the tip digs deeper into the child's neck, and does the greater mischief—hence the paralysis when it occurs will be on the side of the longer finger. This paralysis is to be seen immediately after delivery, if we look for it carefully. Any child in a normal condition, while being washed for the first time even, will reach out its hands to grasp something or anything as if it were afraid of falling; but in this case the careful, observing nurse or physician will notice that this child moves but one arm and hand; the other hangs by its side like a dead, useless thing, causing no pain when passively moved.



This paralysis is not apt to be followed by contractures, nor contractions, but to remain flabby and flail-like. The parents, as soon as the trouble is discovered, are anxious about the future, and it becomes us all to be able to make our prognosis. Some children with care and judicious treatment make a complete and perfect recovery. It never jeopardizes the life, nor the intellect of the patient. The all absorbing question is: Is the child going to be a cripple through life?

The nerve may be more or less damaged, and the paralysis will be as great at first in case of slight damage as in the greater injury to the nerve, hence it becomes necessary to apply electricity to make a correct diagnosis, which may be done when the child is two or three weeks old. If the nerve is but slightly injured, there will be more or less response to a Faradic current; but if the injury is great, there will be no response. The principal treatment will be the same in all three kinds of paralysis.

The important lesson here is, the accoucheur should be very careful about making pressure with the tips of his fingers upon the brachial plexus

of the child in the delivery of the head in all such cases; and in all instrumental cases, to see that the blades of the forceps do not make pressure upon the brachial plexus.

Second. CEREBRAL PARALYSIS OF INFANTS is another form of paralysis which may befall the child in the process of being born. Much is said about the suffering of the mother at childbirth, but nothing about the critical ordeal the child goes through in being born, and many times the child is in greater danger than the mother. There are a greater number of children that die at childbirth than mothers. Many children are crippled on their passage into this world, and doubtless were the children conscious of being passively forced through the bony straits into the ocean of this life, their suffering would be greater than that of the active forcer, the mother.

I would have you give not one particle of attention less to the mother, but more to the child. We are all aware that the child's head in the parturient passage is greatly pressed upon, so much so that the parietal bones are made to overlap each other at the sagittal suture. We also know that the great longitudinal sinus with all the little veins from the superior and lateral region of the cortex is just beneath these bones. When these facts are all fresh before us, we are not at all surprised to learn that under these circumstances some of these blood vessels are ruptured, and we have effusion of blood on the surface of the brain; and this effused blood makes pressure, and this pressure causes paralysis. Because the cause of this paralysis is cerebral, and because the subject is necessarily a child, hence the name *Cerebral Paralysis of Infants.*

It is more than probable, hemorrhage is the cause of many still births. Many of these children that live are born in a state of suspended animation. Motion may be interfered with from slight paresis to severe paralysis, generally hemiplegia. It may be double hemiplegia as in this case (pointing to the child). It is not the spinal cord, nor the peripheral nerves, but the cerebrum.

At this point it becomes essential for us to have a clear idea of the distinction and the relation of the motor centers in the cortical portion of the brain, and the motor cells in the gray matter of the cord. Fig. 1 shows the motor centers for the leg, arm, hand, etc., in the cortex, but these are psycho-motor regions; the cells here are acted upon by the mind. We have no time to go back of this, and to discuss what mind is, or how it causes commotion in these cells. "A" represents the motor cells in the anterior cornu of the spinal cord. The mind is not able to act upon the motor cells in the cord directly; only indirectly, by first operating upon the psycho-motor cells in the cortex of the cerebrum. Here (pointing to the blackboard sketch), we have the region which controls the leg. When I will to move my leg, the mind causes the cells in this region we call the leg center to send a nerve influence (we have no better name) down to the motor cells

in the spinal cord, marked "A," and cells at "A" send out a nerve influence to the muscles of the leg, marked "M," and the desired motion is accomplished. The same is true of the arm, face, hand, etc. They have their centers through which the mind operates them. If either one or all of these centers are destroyed, by blood-clot or otherwise, we have paresis or paralysis in proportion to the lesion.

If the psycho-motor cells are destroyed, then the mind is not able to set the motor cells in the cord in operation, and if the lesion is in the anterior cornu of the cord, and thereby the motor cells are destroyed, then the psycho-motor cells may be all normal, but when the mind acts upon the latter, they may send forth the normal nerve influence, but the cells at "A" are not there, having been destroyed; hence there can be no motion, or we have paralysis. One, because of the lesion in the motor centers of the brain; the other, because the lesion in the anterior cornu of the spinal cord. Externally, the appearance is the same, but internally very different.

This child is about seven years old. It has never been able to walk or talk, is "wet" and "dirty." You can see that its head is not small, and the face is normal in size. It can hear and see. All the special senses are apparently normal. As you see, it is hypersensitive (touching her with the æsthesiometer). The reflexes hyperactive. (The plantar and the patella reflexes were tested.) The child has a little more motion of its superior than its inferior limbs. If we had a battery here and should apply a current of electricity, you would see that the limbs would move. Were the lesion in the cord, the limbs would not respond to an electric current. The reflexes would be destroyed, and there would not be hypersensation of the surface of the limbs, but because there is paralysis, and it is not in the cord, where is it?

You can see that there is a lack of facial expression and inability to control the lips, hence the dropping of the saliva. Again, here (pointing to the blackboard sketch, Fig. 1) is the seat of intelligence, and you see by looking at the child that it too is affected. We do not hesitate to say that the child is suffering from subdural or subarachnoidal hemorrhage, caused by traumatism during birth. The hemorrhage has made pressure upon the motor centers of the cerebrum. The greatest damage is in the leg center. The intellect is also affected. This pressure has arrested development and caused atrophy. May this trouble be embolism? We think not, because the paralysis is on both sides. It is not at all probable that there would be embolism of both sides. Again the paralysis is too extensive, affecting too many centers. If so many centers on both sides were affected by embolism, we doubt that the child would have lived; hence we rule out embolism, also thrombosis.

The lack of control of the bladder and rectum arises from the non-development of the intellect, and not from paralysis of the sphincters. If

you look at the feet you will see the tendency to talipes from gravity. While the child is thus held with its feet on the floor, as if teaching it to walk, you see the strong tendency for the legs to cross, showing the abductors are more affected than the adductors.

I expected to have had another little patient here to show you, suffering in the same way, except that the intellect is not so badly affected.

What shall we do for the patient? Internal remedies are of no service, except those remedies that have a tendency to hasten or encourage absorption; but now after seven years it is too late to attempt such a course. The clot is now encapsuled with thick, fibrous connective tissue. It has wrought its work of mischief by pressure. It has caused atrophy of the cortex cells, many of which are destroyed.

I want to impress on all the students present the importance of recognizing this condition early, so that further hemorrhage may be prevented, and to use all skill to absorb as much of the clot as possible, and to do it early so as to prevent if possible idiocy, imbecility, deformity —a burden to the family or State. We owe it to the child, to the family, and to the community. Some psycho-motor cells may not be destroyed, others may be in such a condition that they may be developed; hence I would suggest in this case the use of a baby jumper to encourage the use of the legs; to teach, if possible, the child to walk. Active motion, and not passive motion, is what is needed here. A galvanic current of sufficient strength to cause gentle contraction of the muscles of both extremities for about three minutes once a day, and massage. There would be more hope where the intellect were not affected, because muscular movement that is caused by the will is better than passive movement.

There is another form of infantile paralysis to which I will call your attention for the sake of contrast, although it is not easily confounded with the others. I refer to the third or POLIOMYELITIS ANTERIOR. This form of paralysis generally does not occur so early, and has nothing to do with the period or process of being born. It originates in inflammation—not from hemorrhage or injury of the nerves. While this inflammation may set in at any time it is a very rare thing for it to come on prior to birth. It usually happens between the second and fourth years. Because there is a fever for a day or two the paralysis is not observed until convalescence; and then it has existed a day or two; and then the idea of an injury is entertained by the parents, and very frequently the nurse girl is unjustly blamed for allowing the child to fall. This disease is a spinal trouble. The inflammation has attacked the motor cells ("A" Fig. 1) in the anterior cornu of the gray matter of the spinal cord; hence while it usually affects one arm and one leg (hemiplegia), it may affect both legs (paraplegia), or both arms, or all four extremities (double hemiplegia). Usually it is at its worst at once, and may improve greatly so that the paralysis may

entirely disappear, not leaving even a trace of the trouble, or it may not improve, leaving the child a cripple for life.

The inflammation of the cord may not be recognized until the mischief is done. If it is discovered, and is subdural, the child may recover without the slightest trace of it. I do not mean that if it is recognized and proper treatment applied early that all cases will get well, but far from it.

The object of presenting this subject is to draw the contrast, and to make the differential diagnosis, and to show the importance of an early diagnosis. The first is the arm, and to be discovered within a short time after birth, and has been caused by pressure upon the brachial plexus, by the midwife's fingers, in delivering the head; the diagnosis is easy. The second is more likely to be hemiplegia, and not a mere arm paralysis; pressure has been upon the cranium, and not on the brachial plexus. These children are generally born with suspended animation, and fifty per cent. of them are the first born. Diagnosis may be a little more complicated, but when we know that it is not simply an arm paralysis, the diagnosis is simple, because at this time and under these circumstances it can be nothing else.

The third does not generally occur at the time of birth. The paralysis is simply paralysis of motion, does not affect the intellect, and is generally preceded by fever, and therefore cannot be confounded with either of the others. Of course we must bear in mind that children are subject to traumatic paralysis with this exception; the three classes of cases we have been speaking of are the only cases of paralysis that young children are subject to. In all these cases, after about two or three weeks, they should be treated by electricity and massage, and where we have reason to believe that there is something (as in the second class) to be absorbed, such remedies should be used together with electricity and massage. The child should be encouraged to put forth voluntary action in the paralyzed limb, bearing in mind that voluntary motion is far superior to passive.

Missouri Board of Health.—This body has recently refused recognition of diplomas of three Kansas City schools; the Woman's Medical College of Kansas City, the University Medical College, and the Homœopathic College. At the same meeting the Board "turned down" nearly 200 medical students as incompetent to begin the study of medicine. Nearly 100 of these were in the class of the Barnes Medical College; eight were in the College of Physicians and Surgeons; and thirteen in the Missouri. We are not informed of the exact number in the Beaumont and Marion-Sims schools. The old and supposed-to-be-highly-respectable Saint Louis Medical College had seventeen out of a class of seventy "turned down." In St. Louis, the Eclectic and Homœopathic schools were all right. And the Woman's Medical College was the only regular school in St. Louis, with a clear record!

ORIGINAL ARTICLES.

THREE WEEKS AT THE SMALL-POX HOSPITAL OF ST. LOUIS.

By H. P. Wells, M.D., of St. Louis.

Demonstrator of Anatomy, Woman's Medical College; Lecturer on Minor Surgery, College of Physicians and Surgeons, St. Louis.

INASMUCH as my time of service as physician at Quarantine, during the recent outbreak of small-pox in St. Louis, was limited to but three weeks, I shall not attempt any detailed clinical descriptions, which would require a more extensive observation. For the same reason I cannot promise the reader much that is new or original with myself in the way of the treatment of this loathsome scourge. Furthermore, small-pox is one of the oldest diseases known to man, although formerly often confounded with other diseases;* and enough literature has been written bearing on its diagnosis, course and treatment, seemingly for all time to come. So there is no call for an effort on my part to add to this already plethoric state. And as small-pox is a disease with which the physician in general practice seldom has to deal, except from a diagnostic standpoint, I shall treat it more as a thing of general interest than of the strictly scientific.

Dr. H. P. Wells, of St. Louis.

My prime motive in asking indulgence for as long as it takes to read these few pages, is a desire to give my readers a glimpse into the white-washed wards of a pest house, without exposing them to the greater or less danger attendant upon a visit to that most uninviting of scientific fields. I am pleased to resign the task of describing the unspeakable horrors of this disease to a worthy substitute, viz.: my camera. The accompanying cuts look very formidable; but rest assured their subjects have long since passed the period of their contagiosity.

In Feb., 1894, while an interne at the City Hospital, I was offered a

*The very name small-pox (petite vérole) is significant of its confusion with the great pox.

temporary appointment as assistant physician at Quarantine; my predecessor, Dr. Geo. B. Tuttle, now an interne at the Female Hospital, having himself fallen a victim to the enemy against whose violence he had pitted his own strength.

On my arrival at the Hospital, on Feb. 12th, there were only a few cases in the wards, all colored, but they were beginning just at that time to come in more lively. The first case was sent down on Jan. 14th, and from that time up to Feb. 15th, about fifteen other cases had developed, coming, for the most part, from the neighborhood of the first case, and in two groups, with a period of time intervening between the first case and the second lot, and between the second and third lots, corresponding in length to the incubation of the disease before its invasion.

From about this time, Feb. 15th, up to the time of the abatement of the attack, almost every day brought new cases; some, in whom the premonitory symptoms had caused the victim to apply for relief at the City Dispensary, were sent from the detention and isolation wards at the City Hospital where they had been kept until the indisputable evidences of the disease appeared. Other cases succeeded in evading the vigilance of Dr. Priest, then Chief Dispensary Physician, and his able staff of assistants, and were not seen until the eruption had progressed to the vesicular, and in some cases to the pustular stage. Many other cases were infected by these undiscovered ones; and so did the number increase until the disease bid fair to become epidemic, had it not been so effectually checked by the prompt and radical measures taken by Dr. Homan, then Health Commissioner, and Dr. Priest.

Great credit is due these gentlemen and their assistants for their admirable work during that time of general excitement and anxiety in our city. The regular corps of ambulances became insufficient and had to be reinforced by other wagons hastily equipped to serve in that capacity. I had rather touch but lightly upon this point; for to discuss at any length the best means of conveying cases of small-pox from the city to Quarantine, a distance of twelve miles over bad roads, would involve, I fear, some embarrassing admissions as to the inadequacy of our own system.

Too well known for my having even to mention it, is the detrimental, and in some cases fatal, effect of exposure to cold of a case of variola after the eruption has come out. I choose to lose track of certain cases which were "sent over the road" in this condition, rather than to follow up their clinical history from the time of their ride until the end. To these cases will be assigned their appropriate places in the tabulated record below.

And yet, is there a remedy for this evil close at hand? He who criticises a thing should follow up his criticism with some kind of a suggestion as to how the conditions might be bettered. But I am not criticising, and hence do not feel it incumbent upon me to suggest a means of improvement in this department of the service. That question may well be left with the

competent gentlemen who compose our present board of health, and who, in dealing with the next outbreak, for it is quite certain to come, I am sure, will leave nothing undone that is within their power, to minimize the danger to these poor victims of a forced journey to the pest house.

Last winter an effort was made by Dr. Homan to secure the service of an ambulance car over the Iron Mountain Road, which runs by the Hospital; but the railroad officials feared that the idea would greatly prejudice the interests of the road, and the request was not granted.

Small-pox is said to be a disease of winter and the early spring-time. So it is, as a rule; but it is not the lower temperature which gives the germ a chance, and excites it to activity. On the contrary, I believe that this association of small-pox with winter is due to the fact that in cold weather the lower class of people, among whom, by the way, the disease always starts, close up every crack and crevice in the house, shutting out God's pure oxygen, and huddle themselves together in one room around a little choked-up stove, to keep warm, and in this way afford a soil for the lurking, sporadic germs of disease; not only of small-pox, but of other diseases as well. The records at Quarantine are convincing in this respect, as they show that the localities from which come most all the cases during an outbreak, are the filthy and unhygienic parts of town.

With regard to the infectiousness of variola, all agree that it is the type of infectious diseases; but a question of importance arises as to the distance at which the disease may be acquired, and upon this question depends the advisability of having isolation quarters in connection with or near by other hospital buildings. It has been stated by some authorities that its scope is very wide, and in the Sheffield epidemic of 1887 it was traced to a distance of 4,000 feet. But this must remain a mooted point, for obvious reasons.

Just a few words descriptive of the grounds and equipments of Quarantine are in order. Fig. 1, looking from the west, with the river in the background, gives a fair idea of the general layout of the place. As above stated, it is twelve miles from the city, south, on the Iron Mountain Road. There are five wards, each holding about twenty-five beds, being equipped with a good heating stove, and all the domestic paraphernalia to make a fairly comfortable house, where the patient spends his entire time until recovered. Each ward is complete within itself, having its own nurses, for day and night watch, its own medicines, ward clothing, etc.

The linen furnished to the patients was such that soon after my arrival I found myself bribing the Steward, Mr. Carter, for one of the new night gowns which had just come in, for they were better than my own. The Superintendent's quarters, and the "brick house" (I quote this because it is the only one on the place, and was used as quarters for both the afflicted Dr. Tuttle and myself) and the white small-pox patients, are off to the

right, not to be seen on this picture. The water supply is from a reservoir, from the corner of which this view was taken.

All of the available space in the wards was filled up within a week after I arrived, and we had to resort to tents into which the convalescent patients were put. These tents were made quite comfortable by means of wood flooring and stoves.

During the first few days, before sufficient help could be secured, Dr. Hardy, the Superintendent, and myself, found it necessary to act in the triple capacity of a doctor and nurse, and general utility man. Temperature charts of all patients were kept from the time of their entry until the termination of their case; but not much in the way of history taken was practical.

All suspected persons presenting the premonitory symptoms of variola,

FIG. 1.—St. Louis Small-Pox Hospital.

the most prominent of which are, rigor or a less pronounced chilly feeling at the outset, fever, headache, and a general depressed feeling, intense pain in the legs and in some cases in the hips and thighs, a dry tongue, with nausea, vomiting, total anorexia, and constipation or more rarely diarrhœa and catarrhal symptoms of the air passages with slight sore throat, were sent immediately to the observation ward in the rear of the city hospital, where they were kept until the eruption came out, or until their symptoms were proven to be non-variolar. But it attests to the diagnostic ability of Drs. Priest, Jordan, and Kearney, and others of the inspecting staff, to note that, almost without exception, a case spotted as one of small pox in its incipiency, and put in isolation, turned out as such.

On their arrival at Quarantine the patients were stripped of all their own clothes, and classified, as nearly as was possible, according to the type

and severity of their cases, provided with new linen, and put into clean beds, as properly dressed as those of any hospital. The individual was assigned a place in the hospital record book, the data taken relative to his vaccine history, and a diagnosis of the type of the disease he presented was made. From this time the patient was seen twice a day by myself, or as often as the severity of his case demanded.

I now pass on to a question which I wish most to emphasize, that of vaccination, and re-vaccination; without considering the course pursued by the disease, in its various types, from the invasion until final desquamation; for any comments in this respect would only be a reiteration of well known facts.

The discovery of the prophylactic inoculation of small-pox first robbed this disease of some part of its terrors, and it is said to have been long practiced in India and China.

It was this operation that Lady Wortley Montague, the wife of an English Ambassador at the Ottoman Court, performed upon her own son, in 1717, in order that he might secure that immunity against subsequent attacks of the disease which the operation was known to afford. And I quote from a letter written by her from Adrianapole to a friend in England, in 1718: "The Small-Pox, so fatal and so general amongst us, is here entirely harmless by the invention of *ingrafting*, which is the term they give it. Every year thousands undergo the operation; and the French Ambassador says, pleasantly, that they take the small-pox here by way of diversion, as they take the waters in other countries. There is no example of any one who has died in it; and you may believe I am well satisfied of the safety of the experiment, since I intend to try it on my dear little son. I am patriot enough to take pains to bring this useful invention into fashion in England." The first person inoculated in England was her daughter.

But unfortunately the inoculation of small-pox did often prove fatal, and, indeed, it is a question, whether in a given case the disease ran a much milder course, being produced by inoculation, than it would have done if acquired in the natural way. Also the inoculated disease was equally contagious with the natural.

At about this time Jenner's article on vaccination appeared, 1798, setting forth the facts which have come down to us in their entirety, and which have proven one of the greatest gifts of man to men in the history of the world. It was his discovery that has plucked the fangs from the serpent, and placed the tragedy of the dread pest, in its pristine horror, among the things now only of historical interest.

Since that time the practice of vaccination as a prophylactic measure has gained ground steadily with but few back-sets; and it is hard to find a man now days so foolish as to doubt its efficiency. Now that the maxim *salus populi suprema est lex* is acknowledged by our legislators, any general

sanitary enactment must be held deficient that does not provide for, and make compulsory, vaccination. By this provision, and nothing short of it the seeds of that dire disease would gradually become scarce and finally disappear; and the soil upon which they might still chance to light would be made unfruitful of the dreadful harvest.

Yet, more important is to declare the necessity of re-vaccination from time to time; about every ten years, I think advisable. There is a tendency with people to think that one good vaccine scar will secure a life long immunity. That the duration of the protection afforded by vaccination is limited, is proved by the fact that fully 75 per cent. of all persons admitted to Quarantine for the past several years, had been vaccinated at some time in their life; and many of them had good scars to bear out their word.

However, the following table of lethal cases, taken from the records of last winter, shows that an efficient vaccination performed at any time of life, though not securing life long immunity, seems to modify the severity of a subsequent attack of variola. For among the deaths there were but a few who could show any sign of a vaccine mark.

	COLORED.		WHITE.		
	MALE.	FEMALE.	MALE.	FEMALE.	TOTAL.
Never Vaccinated	35	8	9	6	58
Primary Vaccination, with a Fair Scar	16	1	2	0	19
Secondary Vaccination	0	0	0	0	
Total					77

Total number of cases admitted from January 14th, '94 to August 8th, '95 was 359; 105 whites, and 254 colored, of which 102 were female and 257 male. The rate of mortality being 21.4 per cent.

This great excess of negroes over whites is probably due to a number of causes, viz: the racial susceptibility of the negro to small-pox; their lower position in the social scale of life, and their less hygienic modes of living; but most prominent, the fact that among negroes the precaution of vaccination is almost universally neglected.

Four women were admitted to the Hospital, enceinte. One bore twins, and miscarried in the ninth month of gestation. One of the twins lived; the other died a few days after delivery. The mother also succumbed to the combined effects of rather a severe type of variola, and the parturient state. In the other three cases the disease ran its course and the patients recovered without miscarrying. Two of them were delivered of still born fetuses before they left the hospital. The other woman was discharged and was afterwards delivered of a healthy child at full term.

There was but one case of variola hemorrhagica during the whole

season, which was in a white woman, with marked tertiary syphilis. She died on the third day before the eruption appeared. This case was a typical one and the hemorrhagic tendency was general; large areas of extravasated blood covering almost the whole body.

In describing this phenomenon of small-pox 156 years ago, the language of Thomas Sydenham, the father of modern medicine, while quaint and beautifully simple, is to-day as accurate an explanation of the pathology of this condition as can be found. I quote him verbatim: "And sometimes also in this disease, in like manner as in the plague, the texture of the blood being loosened by the violence of the inflammation, purple spots appear among the pustules, and are most commonly the forerunners of death;" and in another place he says: "And sometimes from the same cause, though seldomer, blood is cast up from the lungs, but these hemorrhages happen most commonly at the beginning of the disease, before the pustules come out; or if they do appear in some places, yet in most other parts they lie hid thick under the skin, and are of that kind that would flux most; unless the symptoms kill the patient, and so put an end to the disease."

Fig. 2, shows the acme of the suppurative stage of the eruption. Some of the lesions show the umbilication, but in most of them it has disappeared, which occurs with the maturity of the pustule.

Fig. 3, shows the appearance of the body during the dessication of the lesions after their rupture, with the formation of crusts by the running together and drying of the ruptured pustules. The apparent great swelling of the hands in this picture is partly due to a trick of the camera, in magnifing objects nearest the lense. It is true, however, that swelling of the hands in this stage of the disease is always to be expected.

For the reason already mentioned, that small-pox is seldom met with in private practice, the question of its treatment requires but a passing notice. It is purely symptomatic, and much can be done in this respect toward the patient's relief. If the disease proves to be varioloid, by the scarcity of lesions, nothing much in the way of medical treatment will be required. Good nursing and proper nourishment will suffice.

In the more serious types of the disease close attention is necessary to prevent secondary inflammations of the skin and mucous membranes complicating the regular course of the disease.

There is no doubt that the ruptured pustules furnish a point of easy ingress to the pus producing organisms on the surrounding atmosphere, and this, I think, is good argument against the practice advised by some men of decapitating the pustules.

If it were possible to have the whole process go on antiseptically after such a procedure, it might be well. But for obvious reasons this is not practical. Methods have been recommended which accomplish it in a measure, to be sure; such as anointing the skin with antiseptic oint-

ments and lotions. These are indicated in all cases, but are to be used without rupturing the pustules as then the danger of secondary abscesses in the skin is minimized.

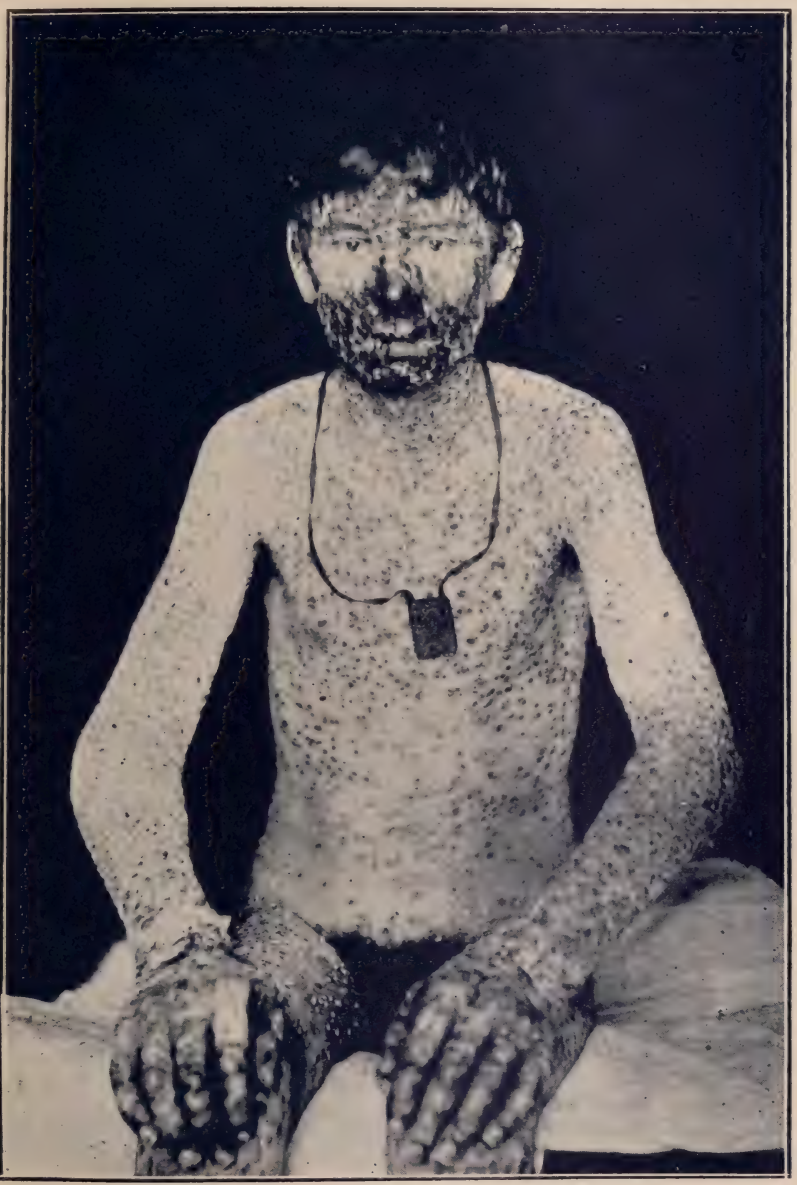
VARIOLA CONFLUENS.

FIG. 2.—H. V., white, æt. 23 yrs., showing the Stadium Suppurationis in its acme. Seventh day of the eruption, and the tenth day of the disease. Recovered.
(This case was vaccinated 10 years ago and presented a fair scar.)

A paste of carbolic acid 10 parts, olive oil 40 parts, cretæ præparata 60 parts, makes an excellent application for this purpose. This

should be applied every twelve hours on strips of muslin, and the part bandaged lightly.

I found salt water to be a good agent for the relief of the itching; it



VARIOLA CONFLUENS.

FIG. 3.—J. S., white, æt. 18 yrs., showing the Stadium Exsiccationis, or drying stage. Twelfth day of the eruption, and the 16th day of the disease. Recovered.
(This case was never vaccinated.)

should be used tepid. Mouth washes and antiseptic gargles for the throat are used as indicated by catarrhal symptoms during the early part of the

disease. Listerine, peroxide, bichloride, chlorate of potash, or tinct. ferri chloridi, or combinations of these drugs may be used. I found a mixture of chlorate of potash, and tincture of iron to be efficient as a gargle and mouth wash, but used bichloride extensively for this purpose as well.

The eyes must be given special attention to prevent the much dreaded corneal ulcer, and the nurse must be impressed with the importance of keeping the secretions washed out from under the lids. A weak solution of boric acid was very satisfactory in my hands for this purpose.

Saline cathartics to combat the constipation, and in the later part of the course of the disease, when the fever runs high, and when the vitality of the patient is at its lowest ebb, iron, quinine, strychnine, and antipyretics, and nutritious food, are used to great advantage. These may be said to constitute the principles of treatment. I have nothing to add as to the treatment of the malignant or hemorrhagic type of the disease; for, as is well known, the appearance of these symptoms in the beginning of a case is usually the death knell to the unfortunate victim.

AN UNIQUE CASE.

By Edwin T. Hosford, M. D., of Manti, Utah, Chief Surgeon, S. P. V. Ry.

THE following case, will, I think, be read with interest:—On December 5th, 1895, at 1:30 A. M., I was called to attend a Mrs. L. K., age 30, primipara. On examination found uterus dilated to size of half a dollar, pains slight. Anticipating a tedious time, as the woman was small and compactly built, I administered twenty drops of laudanum, and left to see another patient. On returning and examining after about two hours, found uterus well dilated, waters well down, pains regular. Normal presentation, but arrested above brim of pelvis; sutures very much agape; fontanelles of much larger size than usual, with distinct feeling of fluctuation; posterior fontanelle being exceptionally large. Diagnosed "hydrocephalus."

I administered an anæsthetic, ruptured membranes, and applied forceps with extreme difficulty, and delivered her of a living child, a boy, weight twelve pounds. After ligaturing and separating child, the nurse took charge of it, as the condition of the mother demanded my immediate attention. The placenta was expelled two minutes after birth of child, and profuse hemorrhage set in. Administered twenty minims ergotin hypodermically, used bimanual manipulation, and cold cloths externally, and controlled it in a few minutes. After ascertaining uterus was firmly contracted, my attention was called by the nurse to the child, who, she said, was bleeding

to death. On examining found cord all right, but on turning child over, found ruptured spina bifida from which blood and cerebro-spinal fluid was

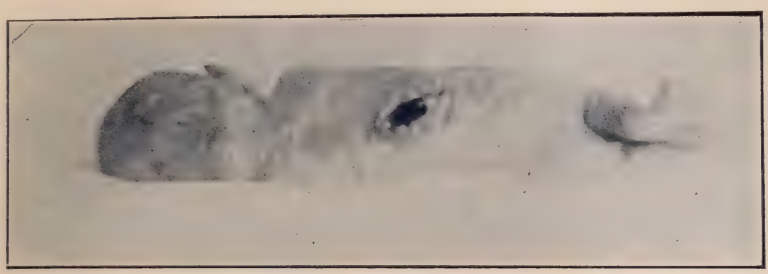


FIG. 1.—Dr. Hosford's Case of Spina Bifida.

oozing freely. Dressed it antiseptically, and applied pad of absorbent cotton and hemorrhage ceased.

On examining carefully, found spina bifida co-existing with hydrocephalus and club feet (talipes varus.) Child was paralyzed from hips

FIG. 2.—Appearance of Child.

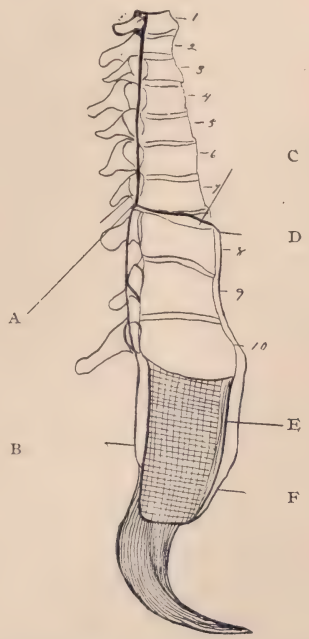


FIG. 3.—Diagram of Spinal Column in Dr. Hosford's Case. A, External Branches of Spinal Cord; B, Lower Edge of Spina Bifida; C, Space (¼ inch) Fibrocartilage wanting; D, Internal Branch of Spinal Cord; E, Coalescence of 7 Vertebræ; F, Termination of Spinal Cord in Loop.

down, and lived forty-eight hours, passing urine through ruptured bifida; no fæces. After death, got permission to have child photographed, copies of which I enclose for reproduction. Also consent of parents to hold a

post-mortem, assisted by my brother, Dr. Wm. J. Hosford (Surgeon R. G. W. and S. P. V. Rys). On thoroughly exploring opening at back found only seventeen vertebræ in child, lower seven coalesced and resembling sternum in shape, measuring 4½ in. by 2¼ in., no lateral arches or spines. Spinal cord at seventh cervical vertebra bifurcated, one branch running outside and along the spinal column, the other following through thorax and piercing diaphragm, and uniting again opposite lower edge of external opening of bifida. No cuticle covered the external tumor, ruptured sac being formed by the meninges. The bladder was immediately connected with the opening, and when body was raised contents would pass through the hole. Urethra absent. Very little curvature to spine. Diameter of head, occipito-frontal, 8½ inches. Circumference 21 inches. Child refused nourishment and laid still, with exception of hydrocephalic cry, till death. Other organs normal.

Examination of brain was refused; as also permission to photograph results of post-mortem. The accompaning photograph shows case fairly well, and diagram shows position of cord.

VITILIGO; ITS CAUSE AND TREATMENT.

By A. H. Ohmann-Dumesnil.

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

VITILIGO is far from being so uncommon a disease as is generally supposed. It is observed to occur in individuals of all races and, as it is entirely devoid of any subjective symptoms, it is not often that those subject to it apply for relief. On this account statistics of dermatologists, dealing with the frequency of the trouble, are fallacious and the non-recognition of cases which are not well marked has led many to the erroneous conclusion that it is comparatively rare. Those who readily recognize the trouble, and who are at all observant, can readily recall a large number of cases which have come under their notice. Whilst, in well-marked cases, the process is a curious one, a study of its pathology shows it to be a very interesting one which is still enshrouded in a great deal of obscurity so far as its etiological factors are concerned. It must not be forgotten that vitiligo and albinism look alike but differ essentially in the fact that the former is acquired, whereas the latter is a congenital defect.

Before entering into a further consideration of these questions it may not be uninteresting to say a few words on the general appearance of the trouble and give the description of a rather marked case which came under my observation a few years ago. Vitiligo, or achromia acquisita, is

essentially an atrophy or deficiency of the cutaneous pigment. The trouble is made manifest by the appearance of greater or smaller areas of the skin which are lighter in color than the unaffected portions. In Caucasians the spots are of a milky color and more manifest in summer, when the integument has been rendered darker from the effect of the sun's rays. In dark races, such as the African, the contrast between the achromic areas and the normal integument is very marked. Absolutely these patches are not whiter in the negro than in the white races. The majority of authors, in fact, all of them state that there is an absolute loss of pigment in the affected spots. This, however, can be easily shown to be erroneous by careful examination. For, if the affected skin be carefully examined, it will be found, as many of the modern writers in dermatology contend, that there is, in reality, a centrifugal displacement of pigment. This is most easily demonstrated in a white skin. If a patch be closely observed and its edge isolated from normal integument, located some two or three inches beyond, it will be found that this periphery is much darker than the normal skin, so that vitiligo should really be denominated a centrifugal displacement of pigment rather than atrophy. Another fact which militates against the atrophic theory is that there does not exist an atrophy of the other elements of the skin as may be seen by referring to Fig. 1. Moreover, sensation, both general and tactile, does not seem to suffer as the esthesiometer and the electric tests easily demonstrate. It would be reasonable to suppose that an atrophy which would implicate such deep-lying structures as pigment cells, would certainly affect the others to some extent at least. Moreover, individuals affected by this disease are otherwise perfectly healthy, and both young and old suffer no inconvenience except in so far as cosmetic appearance is concerned.

CASE.—Some few years ago I had occasion to observe a rather marked example of vitiligo occurring in a rather old negro woman who was at the St. Louis City Hospital at the time. She was rather feeble and in a poor state of health. The disease had begun some years before and had steadily gone on, the white patches increasing in size. Some two years ago I accidentally met the woman and her vitiligo had increased. I was not able to secure any photographs on this last occasion, much to my disappointment, as they would have been most interesting for the purpose of estimating the comparative rapidity of growth of the leucodermic spots. A brief description of the appearance presented, when the patient was photographed, may not be uninteresting. It may be premised that the leucoderma was not as complete in some portions as in others.

When viewed from in front, the general appearance presented was that shown in Fig. 2. The white maculæ occurred in a narrow strip across the forehead, with a few above the eyebrows at the top of the nose and around

the mouth. Then, lower down a large patch about the vast part of the neck extending across over the clavicles and down on the sternum. At a point about three inches above the xiphoid cartilage down to the level of the nip-

Fig. 1. Case of Vitiligo Viewed from the Back.

ples a broad streak extended, and this stretched over both mammæ. An interesting point to observe is the fact that neither areola nor nipple was involved. Across the abdomen an irregular band stretched, which has

since become entirely white. The umbilicus was also affected. The arms had a few small patches, and the hands were involved to a greater extent, the dorsum of the left being entirely implicated. A few isolated patches

Fig. 2. Case of Vitiligo Viewed from in Front.

existed on the legs. Viewed from behind the affected areas differed somewhat, as may be seen by reference to Fig. 3. Here the neck was involved with the exception of a very small patch in the central line. Three small

isolated macules existed on the left side just above the scapula and towards the central line. Over the right shoulder a patch three inches wide passed backwards and downwards along the line of the spinal column, gradually widening until it arrived to the upper part of the internatal fold. A few isolated small spots also existed over the scapular region of the left side. The left elbow had a large patch. The thighs were also the seat of the disease, a few patches appearing in the popliteal spaces. Finally, each external malleolus exhibited the presence of vitiligo in a more or less marked degree.

From what has been mentioned it will be noted that one of the characteristics of vitiligo is that it is progressive. It will occasionally happen, however, that a sudden cessation of the spread of the patches will occur. On the other hand I have observed a few cases—negroes and mulattoes—in whom the progress was rapid and they promised to eventually become entirely white. As a rule the progress is very slow, but easily observed from the fact that the seat of predilection resides in the face, neck and hands. It is not an unusual thing to observe the scalp affected, and whenever this occurs, the hairs of the implicated area become white.

A peculiarity in connection with the distribution of the discolored portion is that, in many cases, a symmetrical distribution is observed. In the case which has just been described this rough symmetry is plainly observable. On the other hand I have had occasion to observe perfect symmetry in a case which I reported in 1884.* Again, in the case reported it will be noted that, along the spinal column, the absence of pigment occurs on both sides of the mesial line for about an equal distance. I have observed three negro children who presented a similar conformation upon the scalp. Contrarily vitiligo may be distinctly unilateral as in a case at present in this city. The subject is a colored waiter in a very popular restaurant and one-half of his face is white. The central line of demarkation is very sharply drawn and exactly limited to the median line except the nose, where it overlaps this.

The pathology of this disease, considered from a pure microscopical point of view, is very simple. It will be found, on examination, that there is a partial, marked or total loss of pigment cells and granules in the skin and connective tissue of the affected area, as shown in Fig. 1. In the parts surrounding the achromic spot a larger quantity of pigment will be found than is the rule in the contiguous normal skin. The distribution of this increased quantity of pigment, however, offers no particular features of interest. It simply occurs in an exaggerated degree in those portions in which the pigment is naturally found, and its disposition in the tissues is the same.

An interesting point in connection with the causation of vitiligo is as

*St. Louis Medical and Surgical Journal, Jan., 1884.

to the role played by the nervous system as a possible factor. Some years ago I considered this subject in a paper[1], but it may not be uninteresting to mention a few words in connection with this and with reference to some more recent works which have since appeared. Duhring[2] thinks that the disease seems to be due to some disturbance of innervation. Leloir and Chabrier[3] found marked changes in the peripheral nerves in a case of vitiligo, and Déjerine[4] also made researches upon this subject, and he noted quite marked alterations of the peripheral nerves of the skin. Leloir[5] prosecuted his researches and found the same alterations in subsequent cases, so that he concludes with quite a degree of certainty that such alterations are very frequent if not constant.

Crocker[6] states that there are strong grounds for regarding the disease as due to a tropho-neurosis, and Morris[7] is of the opinion that there can be

Fig. 3. Cross Section of Skin in Vitiligo.

little doubt that it is a disease of neurotic origin. These opinions will be found much strengthened when we take into consideration the fact that most pigmentary changes and disturbances of the skin have a direct or remote neurotic basis, and from the further fact that in many cases of vitiligo nervous perturbations of some sort have been found to precede the onset of the disease. That the underlying cause is purely trophic has not been satisfactorily demonstrated, but that the nerve terminals of the skin are probably implicated is further confirmed by the peculiarity of distribution observed in cases.

[1]The Role of the Nervous System in the Causation of Vitiligo. Alienist and Neurologist, April, 1886.
[2]Diseases of the Skin, 1881.
[3]Comptes Rendues de l'Academie des Sciences, 1879.
[4]Notes sur les Alterations des Nerfs de la Pean dans un Cas de Vitiligo. Progrès Médical, 1881.
[5]Recherches Chirigues et Anatomo-Pathologigues sur les Affections Cutanées d'origine Nerveuse, 1882.
[6]Diseases of the Skin, 2d Ed. 1893.
[7]Diseases of the Skin. 1894.

To further add to the contention of the probability of the cause of vitiligo being neurotic in character we need but refer to the results of treatment in some cases. For, whilst it is considered incurable, cases have improved under treatment and have even been cured, and, in a few isolated instances, a spontaneous cure has been noted. Bulkley[1] says that he has seen marked benefit from the use of phosphide of zinc and nux vomica. I have had one case recover, and another improve, under the action of a galvanic current. Piffard[2] has suggested this, but merely from the assumption that there might possibly be nervous derangement. However, so far as the neurotic origin of vitiligo is concerned, I do not propose to discuss the subject, having already done so on a previous occasion[3] (1886). Suffice it to say that the majority of cases are very stubborn to treatment, and those subject to vitiligo are not endowed with sufficient patience to submit to the lengthened course of treatment, which is absolutely necessary to procure any satisfactory result. To those who will submit hopes may be held out and an improvement may be looked for in a reasonable space of time. Under other circumstances it is best not to attempt any treatment whatever.

No attempt has been made to give a complete résumé of the opinions of even the principal dermatologists upon the probable cause of vitiligo and its pathology. Those who have pushed their investigations on this subject are very nearly of one mind, but the subject is one which is far from being settled, and it offers a large field for original research. Cases are certainly numerous enough to furnish an abundance of material for such a purpose. The minute investigation of the finer nerves will no doubt ultimately lead to a solution of the question.

Committees.—The St. Louis Medical Society held its weekly meeting in the assembly room of the Board of Education building last evening, with a good attendance. Dr. W. G. Moore, the newly elected President, assumed the responsibility of his position, and made a short address, after which he appointed the following committees:

Ethics—Drs. F. D. Mooney, L. P. Pohlmann and Hall G. Tupper.

Elections—Drs. J. P. Heinrich, John H. Duncan and John B. Shapleigh.

Publication and Debate—Drs. G. M. Phillips, Chas. L. Wilson and F. C. Ameiss.

Executive—Keating Bauduy, Given Campbell and C. M. Nicholson.

Library—Drs. Ludwig Bremer, Wm. Johnson and S. Pollack.

The discussion was on a surgical operation of minor character, the subject being presented by Dr. A. H. Meisenbach. Dr. R. M. Jordan was proposed for membership.—*Globe-Democrat, Jan. 5, 1895.*

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[1]Manual of Diseases of the Skin, 1884

[2]Materia Medica and Therapeutics of the Skin, 1881.

[3]Loc cit.

TRI-STATE MEDICAL JOURNAL.

EDITORIAL DEPARTMENT.

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JAMES MOORES BALL, M.D., - - - Editor and Owner.
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OTHO F. BALL, - - - - - - Business Manager.

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SHOULD BE UPHELD.

In its efforts to advance medical education, the Missouri Board of Health should be supported by all good men in the profession. The time is near at hand when the Secretaries of Medical Colleges must be honest, when the announcements of Medical Colleges must be truthful, and the faculties composed of gentlemen noted more for their scientific qualifications than for their ability to purchase stock in medical diploma mills. The firm stand taken by Missouri will have a beneficial influence upon Iowa and Illinois.

MEDICO-LEGAL MATTERS.

There have been three events in Medico-Legal circles, which have attracted more or less attention, and which seem to be worthy of some comment. The Medico-Legal Congress, the Decision of the United States Supreme Court, and the paper on Crime and Criminals, lately contributed to the profession of New York, by Austin Flint, Jr.

A portion of the work of the Medico-Legal Congress is now before us, and we have every reason to suppose that the meeting will turn out profitably to the members of both of the great professions represented.

The opening speeches of the president and vice-president have been

printed in this magazine recently. The great problem of mental and moral responsibility was the question of paramount importance as it always will be. It surely presents more phases worthy of discussion, than any question that ever came before the profession in any age of the world.

The question before the Supreme Court of the United States was whether a person could be obliged to submit to a medical examination, when bringing suit for personal damages. It was presented something after this manner: A person injured in a railroad accident brings a suit for damages against the company, alleging certain injuries, and supports his or her statement by the testimony of medical men, as to the nature and extent of such injuries. Can the railroad company compel the plaintiff to submit to examination by medical men of their choice, so that such medical men may confirm or reverse the testimony of the former medical witnesses? The decision was in the negative of the proposition, and as we think, rightly so. In criminal cases a prisoner cannot be compelled to furnish evidence against himself, so in a civil suit, he should not be obliged to furnish evidence opposed to his claim. While the neglect to submit to examination may prejudice his case in the minds of the jury, and his submission may in the same manner confirm his own statement, that is a matter of his own choice. To force any person to submit to physical examination has from the earliest times been considered contrary to good morals. It would be a privilege liable to great abuse. It would be enforced by the most unscrupulous of parties. Corporations own the earth now, and while we are very much surprised that so subservient a body as the Supreme Court should fail to do the bidding, so plainly indicated by their owners, we can but rejoice, that liberty of person is retained to us for a little time longer.

No article of recent times is more notable than that of Dr. Austin Flint, Jr., on the subject of Crime and Criminals. It was read before the New York State Medical Society, and published in full in the *New York Medical Journal*. Though somewhat lengthy, it is well worth reading, and should excite a good period of calm, serious meditation.

It contains many good ideas, and a few new ones. We heartily agree in his remarks on punishment especially. It has been the practice of law, and perhaps, a drawback to progress in civilization, to be strongly subservient to precedent in all their decisions. This has been followed in matters of punishment a little more leniently than in other things, but nevertheless close enough to make the history of the world, as far as punishment for crime is concerned, the most humiliating remembrance and heritage that civilization has to bear.

Retaliation as a method of meting out punishment has failed, and grievously failed. Crime has increased, and is increasing just in proportion as retaliation and revenge is meted out, and reformation of offenders is neglected. There is no proposition that will appeal more strongly to legis-

lators than this: That it has become extremely difficult to pass any statute that will tend to protect and uphold personal liberty, but every year statutes after statutes are framed and passed for the alleged protection of property, creating crimes, that were not crimes before, and constricting more and more, and within narrower and narrower limits, the liberty that people enjoy in primitive life.

The term "criminal" and "poor man" become synonymous. The "poor man" perceives that the law has become his enemy, and has long since ceased to be his friend. His respect for the law is gone, or he is born without any. Thus born criminals, they are never taught any other means of earning a livelihood, save by becoming more and more expert in committing the so-called crimes against property. Confined in prisons, they find ready tuition from the professors of the only profession they know anything about.

We must make a straight turn and complete alteration in our ideas of punishment, if civilization is to be preserved. Retaliation must play no part in our system. The element of reform must take its place. The criminal who has learned no trade, must be taught a trade, and must also be taught to profit by it, and to apply the earnings of his labor to wise and provident purposes. The man who has never been subject to discipline should be subjected to discipline, strict, but kindly. The dirty drunkard must be taught to forsake, sack, purge, and live cleanly. In all this good work, proper medical supervision and advice will play an important part. We have been led to see quicker and more clearly perhaps, than any other profession or class of people, the causes and states of mind and conditions of body that lead to crime, and are more competent than the laity to bring about a more desirable state of things. R. C. BLACKMER.

MEDICAL MATTERS AT TOPEKA.

We learn that newspaper accounts of grave robbing at Topeka have been greatly exaggerated. The Kansas Medical College is running, and all of the Professors are said to be attending strictly to business. The usual holiday vacation furnished the newspapers with a pretext for saying that the college was closed.

DOCTOR LEON STRAUS.

Doctor Leon Straus, of Saint Louis, the well-known specialist in rectal diseases, has consented to take charge of the Department of Proctology of the TRI-STATE MEDICAL JOURNAL. The doctor will give our readers an epitome of progress in his line of work from time to time. It is needless to say that these reports will be valuable and will be read with interest by the ever increasing family of TRI-STATE readers.

DOCTOR OHMANN-DUMESNIL.

We are pleased to announce that the distinguished dermatologist, Doctor A. H. Ohmann-Dumesnil, of Saint Louis, will contribute regularly to our pages. The doctor is well known to scientific men in this country, and also in Europe. He is the author of a valuable dermatological text-book, and an atlas of dermatology, and has written numerous original articles. Doctor Ohmann-Dumesnil is Professor of Dermatology and Syphilis in the Marion-Sims College of Medicine of Saint Louis.

OUR NEW DRESS.

Attentive readers will notice that we have donned a new dress. Our type is larger, and the pages are wider and longer than before. The change has been made to accommodate our readers, of many a one of whom it can be said:

"Age sits with decent grace upon his visage,
And worthily becomes his silver locks;
He wears the marks of many years well spent,
Of virtue, truth well tried, and wise experience."

WHY MEDICAL COLLEGES SHOULD ADVERTISE.

In a recent editorial Doctor Culbertson, of the Cincinnati *Lancet-Clinic*, says:

"Furthermore, in order that reputable medical journals may fill their mission as post-graduate educational factors to the best advantage for all concerned, these publications should receive a liberal and not a stinted recognition from the medical colleges, through a continuous patronage of their advertising pages. Medical journals have universally and uniformly sustained reputable medical schools and colleges, and as persistently used their influence in furthering a destruction of fraudulent schools. For such reasons medical journals have a special claim to present in a seeking for the advertising patronage of reputable institutions of learning."

We wish to remark right here that the TRI-STATE MEDICAL JOURNAL, fearless in its condemnation of fraud, has only words of praise for those honest medical colleges which live up to the requirements of the various Boards of Medical Examiners. As in the past, we shall continue in future issues to fight for the cause of higher medical education. Nearly two years since we advocated the establishment of a uniform system of requirements for Iowa, Illinois and Missouri; and advanced the proposition that reform to be effective must begin with the preliminary education of the medical student. These things have now come to pass.

The Art of Massage. Its Physiological Effects and Therapeutic Applications. By J. H. KELLOGG, M. D., Member of the British Gynæcological Society, etc., etc. Octavo, pp. XVI-282. Modern Medicine Publishing Co., Battle Creek, Mich.

Doctor Kellogg has given the profession a scientific treatise of great value. For more than twenty years he has employed massage as a therapeutic measure and his knowledge of the subject is full and complete. We can heartily commend this book to the professional nurse as well as the medical attendant.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In Photo-chromes from Models in the Museum of the Saint Louis Hospital, Paris, with explanatory woodcuts and text. By ERNEST BESMER, A. Fournier, Tenneson, Hallopeau, Du Castel, Henri Feulard, and Leon Jacquet. Edited and annotated by J. J. PRINGLE, M. B., F. R. C. P., London: F. J. Rebman Publisher, 11, Adams street, Strand. Philadelphia: W. B. Saunders, 925 Walnut Street. Part I. To be published in twelve Parts: Price, $3.00 each. For sale by subscription.

This atlas, based upon the world renowned museum of the Saint Louis Hospital of Paris, bids fair to surpass everything which has heretofore appeared in this line. Part I. is sent out with the commendation of such well-known English dermatologists as Jonathan Hutchinson, Malcolm Morris, Stephen Mackenzie, and others. The idea has been to show the commoner rather than the rarer forms of skin and syphilitic diseases. In buying this atlas the general practitioner will make no mistake.

The American Year-Book of Medicine and Surgery. By various Editors and under the general charge of GEORGE M. GOULD, M. D. Philadelphia: W. B. Saunders, 925 Walnut Street, 1896. For sale by Subscription only. Price, In Cloth, $6.50; in one-half Morocco, $7.50.

Mr. Saunders has again shown his enterprise and good judgment by producing the American Year Book. This splendid volume of nearly 1200 pages has been produced at great expense and contains a summary of the important literature of the past year in an acceptable form. We note that the contributors are: J. M. Baldy, C. H. Burnett; Archibald Church, C. E. Clarke, J. Chalmers Da Costa, W. N. A. Dorland, V. P. Gibney, Homer W. Gibney, Henry A. Griffin, John Guiteras, C. A. Hamann, H. F. Hansell, W. A. Hardaway, T. M. Hardie, E. Fletcher Ingalls, W. W. Keen, H. Leffmann, V. H. Norrie, H. J. Patrick, Wm. Pepper, D. Riesman, Louis Starr, Alfred Stengel, G. N. Stewart and Thompson S. Westcott.

A Manual of Syphilis and Venereal Diseases. By JAMES NEVINS HYDE, A.M., M.D., and FRANK H. MONTGOMERY, M.D., with 44 illustrations in the text and eight full-page plates in colors and tints. Small Octavo, pp. 618. Philadelphia: W. B. Saunders, 925 Walnut Street, 1895. Price, $2.50 net.

The authors have presented their subject in a clear and comprehensive manner, which will be found satisfactory by both students and practitioners.

Atlas of Skin Diseases and Syphilis. One hundred photographs from the collection of A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis. Quarto, $15.00 net, f. o. b. St. Louis: Quarterly Atlas Company, 1896.

Doctor Dumesnil has finished his splendid atlas of skin diseases and syphilis. After many years of work the task is done and another leaf has been added to the chaplet which adorns the distinguished author's brow. The work which Doctor Dumesnil has done in his specialty has made his name familiar to scientists in all parts of the world. This atlas is worthy of him.

Ophthalmic Nursing. By SYDNEY STEPHENSON, M. B., F. R. C. S., (Edin.,) with sixty-one illustrations. London: The Scientific Press, Limited, 428 Strand, W. C., MDCCCXCVI.

In a duodecimo volume of 186 pages, Mr. Stephenson has presented a surprising amount of useful information regarding ophthalmic nursing. The book is intended for the instruction of nurses but we believe that its field of usefulness is broader than that. The family physician will find in it much that is new to him, information not generally given in medical schools but which is nevertheless of the highest importance. We cheerfully recommend the book to all needing more light upon ophthalmic nursing.

The Medical News Visiting List for 1896. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and perpetual (undated for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60 patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, $1.25. Philadelphia: Lea Brothers & Co., 1895.

The Medical News Visiting List for 1896 has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an Alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers, and the Ligation of Arteries. The classified blanks (160 pages) are arranged to hold records of all kinds of professional work, with memorandum and accounts.

THE PUBLISHER'S DESK.

Artistic.—Our readers will notice the artistic advertisement in this issue of "Dioviburnia," the most powerful uterine tonic attainable, Anti-Spasmodic and Anodyne, which has simplified the practice of Gynæcology. A reliable and trustworthy remedy for the relief of Dysmenorrhea, Amenorrhœa, Menorrhagia, Leucorrhea, Subinvolution, Threatened Abortion, Vomiting in Pregnancy and Chlorosis, directing its action to the uterine system as a general tonic and Anti-Spasmodic. It is unexcelled.

This product being manufactured by the well-known Dios Chemical Company, of St. Louis, is sufficient guarantee of its reliability.

Please send me a sample of Pineoline. I have used Phytoline in one case with the result—patient weighed 207 pounds, reduced to 148 lbs.

B. D. PEASE, M. D., Greenville, N. H.

Professional Opinions of Ingluvin.—

EDWARD WARREN (BEY), M. D., C. M.—"Hereafter I shall prescribe 'Ingluvin' liberally, and with great confidence in its therapeutic value."

CHAS. LOW, M. R. C. S. E., Etc.—"Medical men will never regret using 'Ingluvin'."

EDWARD COTTEN, D. N., C. P. P., LONDON—"'Ingluvin' is particularly efficacious in vomiting produced by pregnancy."

WALDO BRIGGS, M. D.—"I have used 'Ingluvin' extensively, and find it far superior to any remedies for Vomiting of Pregnancy, Dyspepsia and Indigestion."

The sample of Pineoline you sent me I prescribed for a patient with Acne of the face, and am highly pleased with the result. I believe it to be a good preparation for different skin diseases.

E. R. G. MYER, M. D., Turner, Ore.

Fashions in Medicine.—There has been a fashion in antiseptics; first carbolic acid held sway; it was dethroned by iodoform, and it was displaced by corrosive sublimate, which is now the rage. Fatal results in cases—death by poisoning—was the cause of the disuse of carbolic acid and iodoform, and it will not be long before corrosive sublimate is abandoned. Listerine is a powerful antiseptic and non-poisonous, and can be used ad libitum, either externally or internally, without fear of dangerous results. It is indicated in all cases where an antiseptic is required. As a dressing for wounds and washing out the ear in purulent inflammation of that organ specialists declare it to be valuable. In irrigating sinuses and washing out cavities and abscesses, and in vaginal and urethral injections it has been found useful. In consumption, cancer, diphtheria, scarlet fever and infectious diseases it has been found remedial. It has been tried and commended by the principal surgeons and physicians of the United States.

Important Notice.—We want to call the attention of our readers to the fact that the Holekamp-Moore Instrument Co., 915 Olive Street, keep constantly on hand a fresh supply of the Behring Antitoxine for Diphtheria.

This remedy "Behring" has the endorsement of the profession and the results obtained when it has been used have been most satisfactory. A 10 c c, Syringe "Aseptic" for the injection of this remedy can be had for $3.00 net. The cost of the No. 2 serum is $2.75, and for the No. 3, $3.75. Orders sent by mail or telegraph will have attention.

This remedy will keep for months if kept in a cool place and free from light and in the original package. It should not be allowed to freeze. They guarantee the serum to be fresh and reliable, therefore can not allow it to be returned after once leaving their hands.

Send them 30c, for their new catalogue of 1000 pages. It is up to date.

We think few medical men or laymen know the value of Barley as the old Romans understood it when their gladiators trained on barley bread. It possesses rare nutritive, emollient and tonic value, and as a diuretic is not approached by any grain. A unique and long-needed product from the heart of this grain has lately been placed on the market, called "Barley Brystals," which seems destined to become a very efficient aid to the physician in the treatment of different stomach and intestinal ailments, and Bright's disease. It is also a very agreeable and attractive breakfast dish for the sick or well.

Write Farwell & Rhines, Watertown, N. Y., makers and proprietors of this and valuable sanitary flours for dyspepsia, diabetes, constipation and obesity, and they will send you descriptive pamphlet and free baking samples, if desired.

Campho-Phenique Powder in Leucorrhea.—For over four years I have been constantly using your Campho-Phenique as a dressing in all my surgical cases and not in one instance have I been disappointed. I am delighted not only with its antiseptic action but also with the local anæsthetic action it produces.

About a month ago one of your representatives left a sample of your Campho-Phenique Powder with me and I have used same in treating four cases of Vaginal Leucorrhea all of which were of months' duration. I applied the powder to the Tampons (cotton) after anointing same with vaseline. After each application the discharge lessened remarkably, besides the pain and inflammation subduing almost entirely after first treatment. In two cases I made four applications; in the other two cases six applications when all the discharge disappeared. I was so surprised and pleased myself with the action of your powder, that I felt that I would be doing you an injustice not to write and inform you of my favorable results. I don't know if I am the first to use your powder on tampons, and if future results as favorable follow, I shall surely use it exclusively in treating leucorrheal troubles. If you will forward me another bottle of your powder I will further test its efficiency in gynæcology and report.

Yours very truly,

1 & 3 N. Clark St., Chicago, Ill. E. C. SCHOLER, M. D., PH. G.

A. O. Stimpson, M. D., C. M., Thompson, Pa. says: I have used and prescribed Celerina as a nervous sedative, in a sufficient number of cases to test its medical virtues, and by experience I find that it is by far the most effective anodyne compound that is made. It is especially adapted to such cases that will not tolerate opiates, especially in neurasthenia and hysteric convulsions. I have also used it as a calmative in several cases of insomnia, brought on by over-indulgence in the use of alcoholic stimulants. I have often combined it with Peacock's Bromides very effectually. Miss A. C., a young lady inheriting an extremely nervous temperament from her mother, was treated by me three months ago for amenorrhœa and chlorosis. Preparations of iron were prescribed for her with decided benefit, as a constitutional treatment, but she could get no rest at night, only when completely exhausted. Opiates of various kinds proved more of an excitant remedy than calmative. By the frequent and repeated use of bromides of potash, soda and ammonia, she would obtain rest when her stomach would tolerate the remedies, but Celerina proved to be the *sine qua non* in her case; the second dose scarcely ever failing to procure a protracted and refreshing sleep. Case 2. Mr. F. L., a professional house painter, occasionally afflicted with colica pictonum, immediately relieved of pain and trembling by repeated doses of Celerina given in milk. Case 3. Mrs. J. G., an aged lady, suffering from hemiplegia, attended with annoying formication in palsied limbs, was relieved of these disagreeable symptoms and of insomnia by the use of Celerina. Opiates of any kind failed to have any beneficial effect, and the bromides and preparations of valerian disagreed with her stomach. Case 4. Mr. S. S., an habitual toper, had had no sleep for three nights in succession, where the stomach was in such a condition that it refused to tolerate alcoholic stimulants in any shape, was speedily relieved by the use of Celerina. Case 5. A. C., a young child, two years old, suffering from hydrocephalus, was greatly benefited by the use of Celerina as a nervine sedative, and is in a fair way to gain unlooked-for health.

Officers Elected.—The Aesculapian Society of the St. Louis College of Physicians and Surgeons recently held its annual election of officers. President G. B. Ira, of Santee Agency, Neb.; Vice-President, J. A. Walker, of Ada, I. T.; Recording Secretary, G. H. Vernon, of Carlyle, Ill.; Corresponding Secretary, J. D. Lyons, of Ashland, Ill.; Treasurer, R. E. Niedringhaus, of St. Louis; Librarian, Oscar Yarnell, of Blue Mound, Ill. The Aesculapian Society originated in the University Medical College, of Kansas City, five years ago.

We Want Physicians to call on Physicians with new specialty. Permanent position to good hustlers. Salary or commission. Enclose stamp. PROGRESSIVE CHEMICAL CO.,
ST. LOUIS.

CORRESPONDENCE.

WE CALL THIS OFFER.

OSWEGO, KANSAS, Dec. 23, 1895.

JAMES MOORES BALL, St. Louis, Mo.

DEAR DOCTOR:—In making up my list of Medical Journals for 1896, should be pleased to include "The TRI-STATE MEDICAL JOURNAL." As I set aside $12 per year in payment for these subscriptions, I always remit promptly on the 10th of February and August of each year. If you are so disposed you can send me the "TRI-STATE" for 1896, and I assure you that you will receive a remittance of $1.00 promptly, without notice, on February 10th, next. Should like to see the December Number.

Sincerely yours,

HENRY E. FULLER.

A CARD FROM DR. COKENOWER.

DES MOINES, IOWA, Jan. 6, 1896.

MY DEAR DOCTOR:—The next annual meeting of the Iowa State Medical Society will be held in Des Moines, April 15–17, 1896, with chairmen in charge of sections, as follows:

I. THEORY AND PRACTICE—James Taggart Priestley, Des Moines.
II. SURGERY—J. C. Hughes, Keokuk.
III. OBSTETRICS AND GYNECOLOGY—Frank W. Porterfield, Atlantic.
IV. OPHTHALMOLOGY AND OTOLOGY—J. W. Dalby, Cedar Rapids.
V. MATERIA MEDICA—F. J. WILL, Eagle Grove.
VI. STATE MEDICINE—J. F. Kennedy, Des Moines.
VII. NERVOUS AND MENTAL DISEASES—Frank C. Hoyt, Clarinda.

We ought to have a live local Medical Society in every county in the State, and to that end, please send me the names and addresses of one or more reputable regular physicians you may know in any county where there is no local Medical Society, so I can write them. I am trying to augment the interest and usefulness, and increase the membership of our State Society, by increasing the number and interest in our local auxiliary societies, and kindly ask your assistance.

The program will be mailed you April 1st.

Yours truly,

JAMES W. COKENOWER, Secretary.

ANOTHER OHIO SUBSCRIBER.

WEST FARMINGTON, OHIO, Dec. 26, 1895.

JAMES M. BALL, M. D., St. Louis, Mo.

DEAR SIR:—The sample copy of the TRI-STATE MEDICAL JOURNAL for November received and examined. I enclose $1.50 by check for the TRI-STATE MEDICAL JOURNAL, 1896, and *Pittsburg Medical Review*, 1896, as per your advertisement in the *Pittsburg Medical Review*, Nov. 95.

Respectfully yours,

W. J. HAINE, M. D.

FORMULAE.

Nutrient Enemata.—The nutrient enemata of emulsified oil recommended by Professor Revilloid of Geneva are made as follows:

℞	Ol. Morrhuæ	℥xviij.
	Vitelli Ovi n°	ij.
	Aquæ Calcis	℥xviij.

To diminish the irritability of the mucosa 7 per cent. of salt can be added. The cod liver oil may be replaced by olive oil.

The injection should preferably be made at bedtime, commencing with a dose of four ounces, and increasing afterwards to twelve or fourteen ounces.

Parson's Local Anæsthetic, according to the *Medical Age*, consists of:

Chloroform	Parts 12
Tincture of Aconite	" 12
Tincture of Capsicum	" 4
Tincture of Pyrethrum	" 2
Oil of Cloves	" 2
Gum Camphor	" 2

Dissolve camphor in chloroform, add oil of cloves, and, lastly, the tinctures. This is credited with almost magical local anæsthetic effects.

To Cover the Taste of Cod Liver Oil—

℞	Ol. Morrhuæ	℥vj.
	Ess. Eucalypt.	mxv.

This mixture is said to cover both the odour and the taste of the oil, leaving only that of the eucalyptus in the mouth. Another method is the following:

℞	Ol. Morrhuæ	℥xx.
	Roasted and ground coffee	℥iv.
	Animal charcoal	℥ij.

This is warmed in a *bain-marie* to 60° C. for quarter of an hour, then removed from the fire and allowed to stand for two or three days, shaking it at intervals; then filter through paper. The oil thus obtained is limpid and of an amber colour; it has a marked odour and taste of coffee.

Rigidity of the Parturient Cervix and Local Anæsthesia in Labour —Dr. T. H. Weagly (*The Times and Register*, Oct. 5th, 1895).—In a short paper Dr. Weagly speaks highly of the results he has obtained in cases of rigidity of the cervix by the use of local anæsthetics applied directly to the parts by means of a spray apparatus.

The solution he uses is as follows:

℞	Phenolized Cocaine Solution	3 per cent., ℥i.
	Trinitrin Solution	2 per cent., mx.
	Sulphate of Strychnine	gr. 1-6.
	Listerine	℥i.

He claims that with this solution he is enabled to expedite and soothe the first stage of labour, and even that when the occiput has entered deeply into the pelvis, by spraying the vaginal surface of the perineum and outlet the pains accompanying the expulsion of the head may be reduced to a minimum.—*Practitioner.*

Hydrastis Canadensis for Night Sweats—Hydrastis canadensis, the *National Medical Review* says, is being used with excellent results for controlling night sweats. If a single dose of twenty or thirty drops of the fluid extract does not suffice, then give twenty-five to thirty drops two or three times daily. In nearly every case the night sweats will be overcome. One writer reports seventy out of seventy-three cases of night sweats in tuberculosis where the remedy afforded certain relief.

Multiple Warts of Face—

Sulphuris sublim ..... ℥v.
Glycerini ..... ℥jss.
Ac. acet. ..... ℥ijss.
S.—Apply locally to each wart. The warts dry up and then drop off. The treatment may be continued for several days.

KAPOSI.

Anal Fissure—Palliative—

℞ Ext. bellad. ..... gr. ⅛ to ½
Cocaine hydrochl ..... gr. ¼ to ½.
Ol. theob. ..... gr. x.
For a suppository to be used half an hour before an enema is given.

ADLER.

℞ Ext. conii ..... ℥ij.
Ol. ricini ..... ℥iij.
Ung. lanolin ..... ad ℥ij.
Apply to parts before and after passage.

CRIPPS.

Mixture for Local Anæsthesia—The following mixture is given for local anæsthesia, applied as a spray:

℞ Chloroform ..... 10 parts.
Ether ..... 15 parts.
Menthol ..... 1 part.

The anæsthesia resulting from the application lasts about five minutes.

LE GERANT.

Napoleon's Favorite Prescriptions—The following are given by Charles B. Williams as prescriptions frequently used by Napoleon I.:

(1) ℞ Pulv. ipecac ..... gr. xxx.
Pulv. scillæ,
Pulv. ammoniæ ..... aa gr. xl.
Div. in pil. No. xxxiv.
S.—Two pills night and morning.

The above was used for difficulty of breathing, bronchitis, etc.

(2) ℞ Liq. ammoniæ fortioris ..... mx.
Syrupi erysemi ..... ℥jss.
Infusionis tiliæ florum ..... ℥ijss.
S.—To be taken at one dose.

This was used for immediate relief of hoarseness.

The syrup of erysemum and the infusion of linden flowers would be difficult to obtain at the present day, and these may be replaced as in the following:

℞ Liq. ammoniæ fortioris ..... mx.
Syrup acaciæ ..... ℥jss.
Aq. aurantii flor ..... ℥ijss.
S.—To be taken at a dose.

—*Medical and Surgical Reporter.*

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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Vol. III. SAINT LOUIS, FEBRUARY, 1896. No. 2.

CLINICAL LECTURE.

INTERESTING CASES OF OPHTHALMIC DISEASE.

BY JAMES MOORES BALL, M. D.,

Senior Vice-President of the St. Louis Academy of Medical and Surgical Sciences; Oculist to the St. Louis City Hospital and the Woman's Hospital; Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons; and in the Woman's Medical College of St. Louis.

Delivered at St. Louis City Hospital before the Senior Class of the Woman's Medical College, December 5, 1895.

LADIES:—

IT is with great pleasure that I am able to show you to-day a number of interesting cases of eye disease. Out of the large amount of clinical material which this hospital affords, four cases have been selected for to-day's lecture. The first is a case of

I.—SENILE CATARACT; EXTRACTION; SUCCESSFUL RESULT.

Mr. Roberts, æt., 54, a laborer, has been getting blind for two years. Two weeks ago he was admitted to this institution. His right eye presented a ripe cataract, his left an immature one. It being impossible for him to follow his vocation he was clamorous for relief. I found that retinal perception was normal, and a careful examination showed absence of any contraindication to surgical interference, such as increased tension of the eye,

lachrymal obstruction, pterygium, etc. One week ago the extraction was made under cocaine, the Beers' knife being used. An iridectomy was made, the lens removed in the usual manner, and to-day the patient counts fingers at six feet without a lens. After two weeks we will give him glasses, and I doubt not he will be able to read the finest type with ease. You noticed how carefully the instruments were sterilized, the face scrubbed, the conjunctival cul-de-sac washed with bichloride and you were told that the cocaine solution had been carefully boiled, the glass part of the eye dropper after boiling had been placed in a boiled bichloride solution and kept there until after the face had been cleansed. I also told you under no circumstances to permit the solution of cocaine to come into contact with the rubber bulb of the dropper. An iridectomy was made on this patient because of the rules which I have adopted, viz: (1) In operating upon inmates of eleemosynary institutions, most of whom are not the most obedient of patients, always make an iridectomy; for in this way you obviate the danger of iris prolapse; and (2) in operating upon private patients who are obedient and who are free from cough, and from urinary difficulties, such as stone, stricture or enlarged prostate, never make an iridectomy, unless; (a) the tension of the eye be increased; (b) the iris prolapse, or, (c) the patient be so situated that you must leave the after treatment in other hands than your own. (3) In the first half-dozen operations for extraction which you make, it will probably be wise for you to make the iridectomy. After gaining a certain degree of skill you will not meet with much difficulty in making an extraction without the iridectomy. In my private cases I never make an iridectomy if it can be avoided. The round movable pupil of a simple extraction represents one of the triumphs of ophthalmic surgery. An effort was made many years ago to preserve the sphincter pupillæ and at the same time extract the lens through a peripheral iridectomy. This was the plan followed by Mr. Charles Bell Taylor, of Nottingham, England, but has not found favor with the profession. We will now ask the attendant to bring the next patient.

II.—CONGENITAL COLOBOMA OF THE IRIDES.

Mr. John Ott, æt., 41, appears on superficial examination to have his pupils widely dilated. However, on close examination we notice that the pupils are irregular in outline. This is due not to iritis, but to the fact that the irides are irregularly developed. With coloboma of the iris we often find the same condition of the choroid and then the ophthalmoscope shows a white patch below the optic nerve head upon a red back-ground. The origin of such a spot is referable to the fœtal ocular fissure which exists at the lower side of the secondary ocular vesicle and is designed for the admission of the mesoderm into the interior of the eye. If this fissure closes, a normal eye is the result; but if it remains open we have a coloboma of the

choroid. The iris as you know, is the anterior expansion of the choroid and congenital coloboma of the iris can be explained in same manner. We divide colobomas into (1) congenital and (2) acquired. An acquired coloboma of the iris is made by the ophthalmic surgeon whenever he makes an iridectomy.

Congenital coloboma of the iris generally is not so extensive as in this patient. Usually it is a simple fissure at the lower part of the iris and the pupil is rounded above and sharp like a wedge below. As you see from the appended figure there is an attempt at symmetry in this case. This patient has used glasses for reading since his nineteenth year.

You can readily distinguish an acquired from a congenital coloboma by observing the edge of the opening. If the sphincter lines the edge of the coloboma as well as the margin of the pupil, the coloboma is congenital. In an artificial coloboma the sphincter is wanting in the course of the coloboma, because it has been excised. Coloboma is not the only congenital anomaly to which the iris is liable. There may be a persistent pupillary membrane, a displacement of the pupil, multiple pupils, or complete absence of the iris. These conditions, of course, do not admit of treatment. They

FIG. 1.—Congenital Coloboma of Irides.

are to be remembered, however, as interesting conditions which are fortunately rarely met with.

III.—SYPHILITIC ULCERATION AND DESTRUCTION OF THE EYELID.

The next patient is Mr. Harry Swope, American, æt. 64. Thirty years ago he had the primary lesion of syphilis followed later by tertiary lesions of the sternum and parietal bones. About one year ago he noticed a small pimple situated just below the outer canthus of the left eye. It did not pain him but caused an itching which the patient tried to relieve by scratching. This left a bleeding surface which has never healed. There has been no pain at any time. The ulceration has extended until now there is complete absence of the lower eyelid, involvement of the ocular conjunctiva at the lower side of the globe and commencing corneal ulceration. The patient can move his eye in all directions except downwards. I have no doubt the inferior rectus muscle is affected. This man is now in the hospital on account of a fracture of the femur which he sustained some weeks ago. He is taking anti-syphilitic treatment and the ulceration seems

to be decreasing. (The condition may be judged by the accompanying plate, Fig. 2.) I should make a plastic operation in this case if the patient were to remain with us. Unfortunately he must leave to-morrow.

Syphilis as a factor producing ocular disease is often met with. You have all seen cases of syphilitic iritis in this clinic. We have seen syphilitic keratitis, retinitis and paralysis of the accommodation as well as paresis and paralysis of various extra-ocular muscles. The initial lesion of syphilis may be met with on the eyelid. Syphilitic ulceration may thus be started ending in destruction of a great part of the lid. Hirschberg has recorded cases in which the lid was lost by the breaking down of gummata of the conjunctiva. The lachrymal gland is rarely involved in syphilitic processes, but the puncta, lachrymal sac and nasal duct are often affected either by extension of some skin lesions in the vicinity, as chancres, papules, tubercles or ulcers of the lids, or what more frequently happens, by the upward extension of a nasal syphilis via the nasal duct. The duct is often closed, either by gummatous deposits in the lining membrane or by osseous changes. The bony changes often end in caries and necrosis. In syphilis of the cornea we have either interstitial keratitis, the opaque spots commencing centrally and extending to the periphery, or the invasion may be reversed. In another form there are multiple spots of opacity, each one about the size of a pin-head, with clear cornea intervening.

FIG 2.—Syphilitic Ulceration of Eyelid.

IV.—EMBOLISM OF A BRANCH OF THE CENTRAL ARTERY OF THE RETINA.

I feel that we are fortunate in having this gentleman with us. He is a private patient who has kindly consented to appear before you.

Hans M., aged twenty-nine years, German, a bookkeeper, was brought to me September 12, 1895, at 10 A. M. Two hours before, while at work, he had suddenly become entirely blind in the right eye. Four hours later, with the right eye he could see only the lower half of objects. He has worn concave lenses (—3.) for fifteen years. At the time of my examination vision was as follows: R. E. with —3. = $\frac{15}{100}$; L. E. with—3 $\frac{15}{30}$. Five years ago he had a severe attack of rheumatism, involving many articulations and his chest (endocarditis).

Ophthalmoscopic examination showed nothing unusual in left eye, but in the right eye an interesting picture was presented. The lower external part of the retina was bloodless, the line of demarkation between it and the normal retina being well marked. Close examination showed the presence of a plug in the inferior temporal branch of the arteria centralis. Beyond the occlusion, for a distance equal to the diameter of one disc, was a portion of artery which was narrow and void of blood. Toward the peripheral part of the vessel, blood was present. The field of vision is shown in the accompanying diagram, Fig. 3. The patient promised to return, but did not do so until October 6, 1895—twenty-four days after the attack. At this time vision in R. E. $= \frac{15}{50}$. The ophthalmoscope showed that the retina in the affected area had regained its normal color. The affected

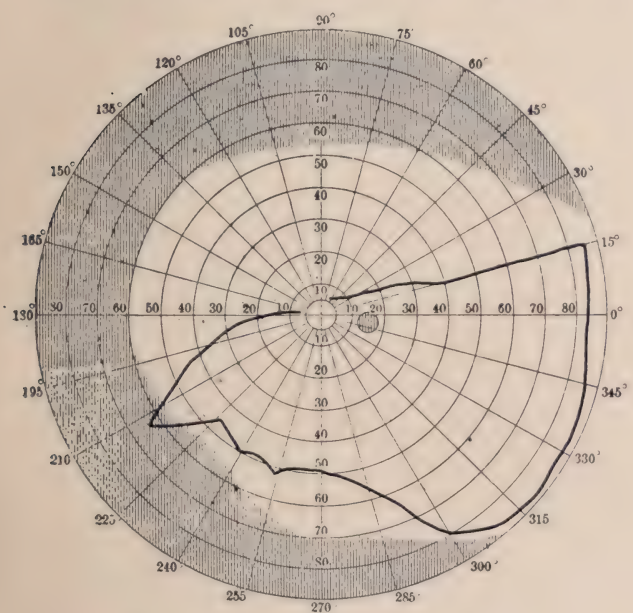

FIG 3.—Field of Vision of Right Eye of Hans M. four hours after attack.

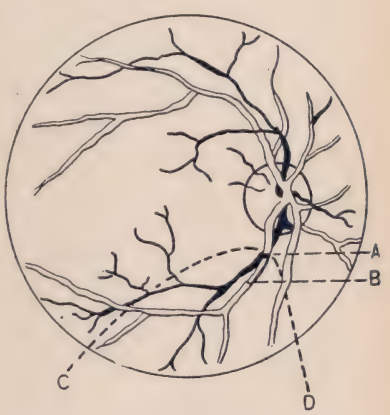

FIG 4.—Diagram of the Fundus in the case of Hans M. A, location of embolus; A B, portion of artery in which blood was absent; C D, pale portion of retina.

vessel was smaller in diameter than normal, but contained blood. The field of vision to-day, two months after the attack, is practically the same as that shown in Fig. 3.

This interesting case I recently reported briefly in the *New York Medical Journal*, Nov. 30, 1895. Strange to say, a few days after my first examination of Hans M., I was asked to examine the left eye of Michael R., Irish, 45 years of age, who, while feeding a furnace, became suddenly blind in his left eye. At the time he saw sparks but had no pain. Vision was reduced to the perception of light. Ophthalmoscopic examination showed complete blanching of the retina with a brownish red spot of the macula. The arteries and veins were of normal size and the arteries con-

tained blood. It was a case of embolism of the central retinal artery in which an unusual picture was present.

What is the characteristic picture in embolism of the central artery of the retina? In a patient giving a history of sudden blindness, if the case be one of embolism, the ophthalmoscope will show complete absence of blood from either a part or the whole retina, depending upon the location of the plug. The arteries are either completely lost to view or much diminished in size. There is complete absence of pulsation, venous or arterial, on pressing the eye. In the midst of this extensive change of color there is present, in the macular region, a cherry-red spot. We cannot say with certainty just why this should exist, but it is present in most cases of embolism.

The prognosis of embolism here, as elsewhere in the body, is grave. Attempts have been made to dislodge the plug by massage, and by operative aid—tapping the anterior chamber, but usually without success. That embolism does not more frequently occur is doubtless due to the anatomical fact that the ophthalmic artery branches from the internal carotid artery at almost a right angle, and that the arteria centralis retinæ is given off from the ophthalmic in turn in much the same way. Hence a clot leaving a cardiac valve is much more likely to continue its course in the large vessel and lodge in the brain than to enter a branch given off in this manner.

Tri-State Board Muddle.—The recent conference between representatives of the Boards of Health of Iowa, Illinois and Missouri, at Des Moines, Iowa, was a spirited meeting. It is said that Missouri's representatives left in disgust because the Iowa and Illinois men wanted to make the preliminary entrance examinations too low—in fact, a farce. We have long known personally that a certain member of the Iowa Board votes in favor of higher medical education at the meetings of the Board and then consents to the graduation, by the school with which he is connected, of students who cannot read and write correctly. Is it any wonder that Missouri's representatives were disgusted? What will be the result? Simply this: Missouri will not recognize Iowa's diplomas.

Triumph for the Board.—Missouri's Board of Health recently accepted apologies from the University Medical, Homœopathic Medical, and Woman's Medical Colleges, of Kansas City, after the colleges had complied with the law and had promised to submit reports as directed by the Board.

Will not be recognized.—Look out for surprises this spring. We predict that the Missouri Board of Health will not recognize diplomas issued by Iowa and Illinois Medical Colleges.

Incompetents Must Go.—Students who graduate this spring from diploma mills, and from schools in which the entrance examination is a farce, will be "turned down" in Missouri. Soon the Eastern journals will no longer harp about lax educational methods in Missouri. Incompetents must go.

ORIGINAL ARTICLES.

PSORIASIS.*

By T. M. Baird, M.D., of Hot Springs, Ark.

THIS disease assumes such a variety of forms that unless its characteristic symptoms are carefully looked into, it is likely to prove misleading and be mistaken for some other affection of the skin. It has been called essentially a disease of the well, for the general health of the patient does not seem to have much to do with the course or duration of the disease.

That the disease is of parasitic origin is believed by but few, for authorities generally assert that it is not. It is not a contagious disease, but that it results from hereditary transmission there is little doubt. Psoriasis is a chronic inflammatory affection of the skin. It begins as a somewhat elevated reddened macula which is covered with adherent scales.

It is essentially a dry affection of slow development and of uniform type. It first attacks the parts where the epidermis is thick. The arms, chest or any part of the body may be attacked—very rarely the face. It may be said to always attack the upper extremities before the lower. The photographs exhibited are of a young man, nineteen years old, who has had the disease for five years, and is the most perfectly developed case I have yet seen.

He has been treated for syphilis, eczema and several other varieties of skin disease, but never but once before for psoriasis.

He is now entirely free from any eruption, after having undergone six weeks' treatment.

Psoriasis generally first makes its appearance on the apices of the elbows and knees, also on the back and trunk and then all over the body, but, as I said before, rarely on the face, but it attacks the scalp and ears frequently.

It first manifests itself by a circumscribed reddening and thickening of the skin, very slightly elevated; if allowed to progress, the skin becomes still more thickened and elevated and is covered with scales, which are very adherent. We will find a certain uniformity of the patches, not found in any other similar affection. After the patches have grown to the size of a half dollar, or larger, they are likely to sink in the center; while the ring enclosing them becomes more elevated, the interior may become perfectly healthly looking, leaving only the ring. This is the form most frequently seen and is called psoriasis circinata. These rings do not remain

*Read before the Tri-State Medical Association at Memphis, Tenn., November 14th, 1895.

the same size but enlarge and often fuse with another ring. It is not my purpose to mention all of the various forms psoriasis may assume after this, for they are numerous. An innumerable number of Latin names having been used to designate them.

Remember that the disease is disposed to attack the extensor surfaces first, that it begins with maculæ slightly elevated, and covered with

FIG. 1.—Dr. Baird's Case of Psoriasis.

adherent scales which, when picked off, causes bleeding from a number of small points. This is said to be pathognomonic of the disease.

The itching, if any, does not annoy the patient much and the disease advances very slowly. Scaling papular and tubercular syphilis is most likely to be mistaken for psoriasis and are hard to differentiate. The history of the syphilitic eruption will at once enlighten us, but if the

history of syphilis is vague, we should place the patient on specific treatment and if of syphilitic origin the diagnosis will be cleared up in a few weeks.

Scaly eczema is also mistaken for this disease. We will find the itching more intense, the scabs more shiny and less adherent, and when scraped off the bleeding will not be seen and eczema is frequently moist and advances more rapidly. Ringworm, lichen planus and several other skin affections are mistaken for this disease, but if the physician will carefully examine the eruption and their history, he can hardly fail to make a correct diagnosis.

The prognosis for a permanent cure is poor. We can in a majority of cases cause all trace of the disease to disappear in a few weeks, but we cannot prevent a recurrence which is almost certain to take place.

The disease seems also to be hereditary, for parents suffering from psoriasis are almost certain to beget children who will sooner or later develop the disease. The treatment has been varied: Carbolic acid, iodine, oil of cade, sulphur etc., have been used externally with varied success.

Arsenic and a host of other remedies have been given internally. At the Hot Springs City Dispensary we have had remarkably good results follow the following mode of local treatment. We first give salicylate of soda, twenty grains to one ounce of vaseline. This is used until all of the scabs have fallen off and the inflamed surfaces are clean. We then use oxide of zinc ointment for a few days to reduce the inflammation after which we order the following to be applied daily after a hot bath has been taken:

℞ Salicylate of Soda.
Chrysarobin ..... aa gr. xv
Oxide of Zinc ..... gr. xx
Vaseline ..... ℥j
M.

We have treated a large number of cases and have never yet failed to affect a speedy cure or rather a disappearance of all symptoms. I have used the thyroid extract prepared by Armour & Co. in two very bad cases and found that the disease responded much more readily to the local treatment than those that had been given other internal remedies. Perhaps in this extract we may have a permanent cure for this troublesome affection, but the experiments tried so far cannot be said to be conclusive and no opinion can be expressed.

Examine the Professors.—If preliminary education is a good thing for students, why not apply it to professors? We would suggest a State examination of all who profess to be professors. There would be a scattering in some quarters.

CHARACTERIZATION OF CHARLES A. POPE, M.D.*

By Warren B. Outten, M.D., of St. Louis.

Dean of the Beaumont Hospital Medical College; Surgeon-in-Chief of the Missouri Pacific Railway; Editor of the Railway Surgeon, etc., etc.

Mr. President and Gentlemen:

It has been said that to truly appreciate, is the lot of few; here and there we find an almost isolated, thoroughly appreciative person, who carries within himself an unceasing source of much which constitutes the best product of a highly organized normal mentality.

Such persons glean from life the very best products of content and happiness. To them envy does not appear to possess the capacity to affect and injure. Envy is a necrobiotic disease, infectious in character, and engendered by assertion and prejudice; and has its seat in that portion of the brain presiding over good common sense and benevolence. With necrotic and sclerotic tendencies it kills or hardens the brain to broader and more generous elements.

It has been bitterly said that none lacks in the appreciation of the Doctor more than those who follow in the same profession. It is pitiable, but still true, that too often we throw aside cool, calm, soothing words of charity and respect for captious bitter words of a prejudiced unreasoning malevolent criticism. I speak thus from the reason, that when I began to sum up the characteristics of the gentleman whose picture we have here to-night, the brightest part to me of a very brilliant character was his veneration and appreciation of the works and labors of the Masters of Medicine.

Charles A. Pope taught his every student that reverence was an ennobling sentiment, that appreciation was, indeed, a rare mental invigorant. Oh! how many he has taught and trained in classical medical lore; the histories of medicine's heroes aroused in every mind a real longing ambition to attain that period when some one might laud and appreciate them in splendid loyal tones like his. Aye, indeed, he was a true and perfect prototype of the first Surgeon of his time in the Mississippi Valley. A model, as I saw him, manly, noble and earnest, who at all times inspired and elevated. He aroused dormant ambitions, and pointed to lofty ideals for example and copy. Progressive, honorable, too much of a student to waste his time in acrimony or criticism; his was a life whose

*Delivered before the St. Louis Medical Society, December 21, 1895.

positive force came from a loyal devotion to his calling. He never knew but one course, and that was to elevate, a builder, a constructor of character, never a grumbler or despoiler. He left the world better for his having been in it. He made surgery to his students a grand and respected art; he evolved graceful effect, the master of harmony of action and result, and worked upon the human form with all the grace and care of an honest inspired devotee to a grand and noble calling. He held his knife with the hand of a Master, and never at any time did it appear but that there was a pre-ordained combination formed for the purpose of good and cure. Never at any time, when Charles A. Pope held an instrument for operative procedure, but that he looked the ideal Surgeon. No flippant thought dare assail the mind of his student, but every motion indicated strength, efficiency and the perfection of surgical art. I say here, that Doctor Charles A. Pope left upon the minds of the students of the Mississippi Valley a deep and lasting impress of the true and honorable function of surgery, more so than any man of his time, and step by step he enlarged his sphere, and enlarged the best moral elements existing in the minds of his students and its impress still remains.

His high moral standard was ever constantly indicated in words and deeds. No sordid element ever determined the hazard of an operation to him. The human form was divine, and he approached it in operative procedure in grave and respectful awe.

My remembrance of him comes from thirty-one years ago; they are the remembrances of youth, enriched by age and experience. They have made me, through my professional life, rich in feeling, in kindly grateful thought; they are mine with all of their enthusiasm, appreciation and imperfection. I ask all who knew him, as I did, to share them with me; but to that one who dares assail and rob me of them, I say, God forbid, that they should ever be replaced with acrid wrangling, critical captious thought. I know too well the impress he left upon my mind and its influence for good has existed for thirty-one years; nay, then, I never would permit at this distant period a change from a grateful love to a sheer skeleton of critical analysis. Aye, I am, indeed, thankful that it fell to my lot to be taught by such men as Pope, Hodgen, Pallen, Linton, Litton and others. A coterie of efficient noble teachers, whose works still remain with many Doctors, enriching the ranks of medicine, and whose truthful lessons have made them efficient and good men.

With this, permit me to present to the St. Louis Medical Society, this picture as a tribute to a man worthy of the highest and sincerest respect of all physicians. To his students no words of mine can add to his high and honorable reputation, as his life's actions were, and are a continuous source of love, respect, and an exemplary model of a conscientious, zealous and efficient Surgeon.

RUPIA.

By A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

TO the serious student of medicine, there is no more interesting department than syphilology. The study of the various processes which are found in syphilis, is one which is always interesting, and it is withal of the highest utility in arriving at a correct diagnosis, and in formulating a successful plan of treatment. Many visceral diseases of an apparently obscure origin, and intractable to treatment, readily yield the most brilliant results when properly traced to their true origin—syphilis. It should always be borne in mind that this trouble may be a possible factor, for it is so widely disseminated, and, in many instances, its earlier stages are of such a mild character that the patient has either forgotten the circumstances, or looks upon the whole affair as of such a trivial nature that he does not look upon it as incumbent on him to make any mention of it. In addition to this, the generality of the medical profession have paid but comparatively little attention to the subject, and unless confronted by an eruption often forget the fact that lues is a protean disease in its manifestations, and one requiring more than perfunctory treatment. It should be watched with care, and not, as too frequently happens, be met with neglect. And even eruptions are but too often mistaken for syphilitic when not so, and vice versa. Among the eruptions which are very apt to lead to error are those of the late period of syphilis. So-called tertiary syphilis is but too often supposed to be confined to gummata and affections of the bones when, in reality, it is replete with various eruptions of a most interesting nature.

I do not intend entering into any lengthy dissertation upon syphilis and its nature and different manifestations as the subject is practically an inexhaustible one. But, it may not be inappropriate to call attention to the fact that syphilis is by no means a disease which has remained *in statu quo*. As a matter of fact, it has become a comparatively mild disease, if we are to place any reliance on history. In the fifteenth century it was most virulent, and deaths were by no means uncommon, and they followed infection in an incredibly short space of time. This virulence abated gradually, but no later than fifty years ago we find descriptions and plates of the disease representing it as much more severe than we are accustomed to find it to-day. However, we occasionally have occasion to observe cases which recall some of the older types, which have apparently disappeared. It is chiefly in neglected, imperfectly treated or generally depraved physical conditions that such reversals of type are met with, and they are of such a nature as to be markedly debilitating and rapidly destructive in their action.

Rupia may be stated to be, in general terms, one of the cutaneous

lesions characteristic of late syphilis. On the other hand, like other manifestations of this character it may appear comparatively early, and in precocious cases it is sometimes seen in the course of the first year of the trouble. As a matter of fact, it is essentially a modification of the pustulo-crustaceous syphilide, the changed appearance being largely dependent upon the lowered state of the tissues of the individual. The evolution of the individual lesions is a slow one, and both progressive and destructive. To recognize it before its full development is impossible; to prevent its evolution is comparatively an easy matter. The first manifestation which is observed is in the form of a dark red macule, which gives rise to little or no anxiety on the part of the patient, whilst the color has been described as copper-colored, cut-ham in tint, to my mind it is more of a red, slightly tinged with brown, nearly approaching a sepia on a red ground. This macule is succeeded by a small flat pustule, whose innocent appearance is very deceptive. It is, however, soon covered by a greenish-brown crust, which is never very large, possibly a quarter of an inch in diameter, and roundish or slightly ovalish in outline. A peculiarity of the crust is that it has quite a marked tendency to become thick, and this thickening increases as the disease progresses. The first appearance of the crust is not of a particularly alarming character, as it is not excessively thick and, at its inception, ordinarily gives rise to little or no suspicion of its true nature, unless in the mind of one well acquainted with it.

Rupia, whose name is derived from *rupos* (dirt), is, in reality a superimposition of a series of dirty, greenish-brown or blackish-red crusts upon each other, and resting upon an ulcerated base, covered with a greenish-yellow, foul-smelling pus, occasionally streaked with blood or containing small portions of clotted blood. Directly a crust has formed and obtained a certain size (generally a quarter of an inch or so in diameter), another crust forms immediately underneath the first, of the same general outline, but a little larger in area. This process, it must be understood, does not imply that the first crust is thin—on the contrary, it is thick and may be conical in form, its height being fully equal to the diameter of its base. The successive formation of crusts immediately underneath each other goes on steadily and rather slowly, and, as already mentioned, each one is larger than its predecessor, and the underlying ulceration becomes deeper. The process may go on for an indefinite period of time, and the crusts will remain as a whole, being rather firmly attached to the underlying tissues. It may be stated, as a general fact, that in an untreated case, the accumulation of crusts has notably increased the height of the lesion, the area of its base has become larger, and the underlying ulceration has become deeper with each successive lamination. Another point not to forget is that this progressive ulceration introduces the element of pain, and this increases *pari passu* with the extension of the process.

Of course, this element of pain is only manifested upon pressure on the lesion.

When a rupial crust is closely examined, it will be found that it is surrounded by a narrow band of pus, giving the impression that it is floating.

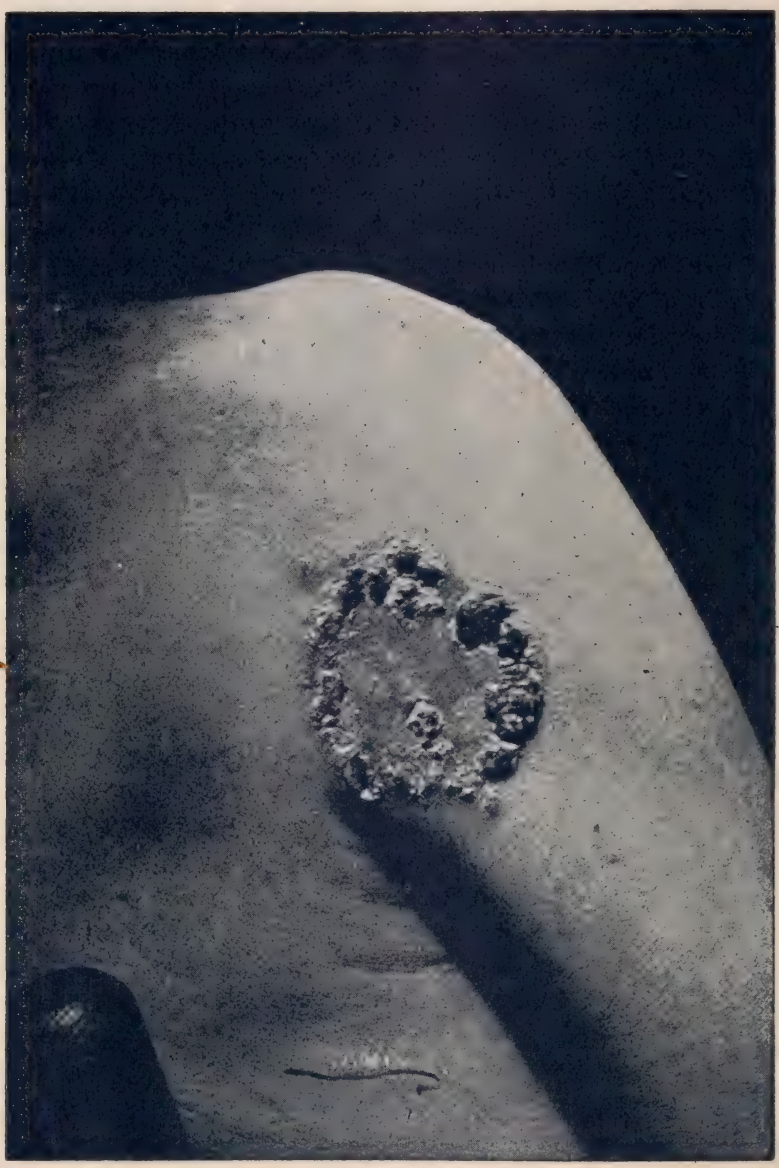

FIG. 1. Small Crusts of Rupia.

External to this purulent zone there is an areola, more or less pronounced, of a dusky copper-red color, which gradually merges into the color of the normal integument. When the lesion has disappeared, the characteristic

pigmentation is manifest in the scar, which marks the former site of the crust. The number of rupial crusts which may be observed in a case varies greatly. A peculiar fact which is noted is that, in some individuals, the crusts remain comparatively small in size, and never exceed a half inch in

FIG. 2. Large Crusts of Rupia.

diameter. A good example of this may be seen in Figure 1. Here it will be seen that an attempt at confluence has declared itself, but never succeeded in becoming established. On the other hand, the size of the individual lesions is made up by their number. For, in this, as in all other cutaneous

involvements, the rule holds that the smaller the lesions, the greater the number, and vice versa. Rupial crusts may attain a size much larger than these just mentioned, and be as much as two inches in diameter, and as thick as an inch or more, with a more or less imperfect conical form. It is when they have attained this large size that rupial crusts present their characteristic form. It is then that we encounter the so-called "oyster-shell" appearance which is very well shown in Figure 2. As may be observed in this picture, the rupial eruption is in various stages, a circumstance which is not unusual in such cases. The various sizes and degrees of evolution are quite typical of the successive manner of their appearance. The mode of growth by superimposition of crusts is also well shown in the largest lesion.

It is true that rupia, even in its milder forms, is but infrequently seen in private practice. The most marked cases and the severer forms, are those met with in public hospitals, clinics and eleemosynary institutions. This is no doubt dependent upon the fact that those who are the carriers of such lesions are individuals who have been debilitated by exposure, lack of food, excessive drinking and deficiency of treatment. Filth and carelessness also add their quota to this general physical ruin and general break-down. Typical cases, however, are far from being rare in public hospitals, in both males and females, and constitute marked examples of the types of wretchedness, poverty and degradation which the shady quarters of large cities furnish.

It may be laid down, as a general rule, that the lower extremities are not the seat of rupia. It seems to have a predilection for the arms and face, the trunk not being often attacked, and then it is the back which most frequently suffers. At least, such has been my experience. When the legs do become the seat of rupia, it is almost always certain that other portions have been affected. When the face becomes affected the crusts may be so thick as to make the physiognomy perfectly hideous, or if but one side is affected, sufficiently ugly to be repulsive as may be seen from an example in Figure 3. It is when lesions assume the size and proportions delineated in the accompanying figures that terror seizes upon the patient, and leads him to seek treatment. The crusts of rupia differ somewhat from the earlier syphilides in that they do not assume any symmetrical distribution. Unilateral disposal seems to be the rule, and the reason of this does not seem to be apparent. A strange coincidence which may be noted in the figures which accompany this article, is that the crusts appear on the left side.

The natural termination of an untreated case of rupia is in one of two ways. In some cases the crusts drop off spontaneously and, in the course of time, and cicatrization finally occurs the scars being rather thick and corded and in many cases cribriform, that is, showing the perforations of the ducts of the sebaceous glands as well as sweat-pores. In other cases, the ulcerative process may take on a sudden impulse, and become deeper and deeper.

This naturally leads to greater or less destruction, and a deep ulcer will ultimately manifest itself which will go deep down into the tissues to the extent of even involving the underlying bony structures. This is certainly a serious matter, and the fact, such may be the final outcome of any case of rupia, should not only lead to the adoption of active curative measures, but should make a prognosis guarded; whilst proper care and attention to both nutritive and medicinal requirements are generally followed by excellent results, cases will arise which seem to stubbornly resist all measures.

FIG. 3. Confluent Rupial Crusts of the Face.

The diagnosis of this trouble should offer no difficulties whatever as there is no cutaneous affection which possesses lesions having the same characteristics as rupia. The peculiar form and progressive growth of the crusts as well as their dirty reddish-brown color should immediately awaken suspicions of its true character. The marked fetid odor is also a sign which is almost pathognomonic if it has been once experienced by the nostrils. The generally run-down condition and appearance are further confirmatory elements to form a diagnosis not to mention a history of syphilis which can always be obtained in such cases.

Whilst the general broad lines of treatment may be easily laid down, it requires a certain amount of judgment to properly carry out the necessary details to obtain a successful issue. In the first place it is absolutely essential that good, nutritious food in sufficient quantity should be eaten by the patient. His surroundings should be clean and comfortable. If necessary to countereffect the stimulating effects of the alcoholics which have been previously taken, kola wine combined with bitter vegetable tonics should be administered. These will be found to be the best adjuvants to the more specific remedies which are given. So far as specific medication is concerned, it will be found that an active mixed treatment is the best to begin with. This is more especially valuable in those cases which are in the transition period between the secondary and tertiary periods. The following will be found quite an effective combination to use:

℞ Hydrargyri bichloridi,.....gr. ij.
Kali iodidi, ...ʒ ij.
Tinct. cinchonæ co.,
Aquæ destillatæ, ...aa ʒ iv.
M.
Sig. Half a tablespoonful in milk, after each meal.

In some instances, it will be found necessary to diminish the quantity of mercury, or to stop it altogether, keeping up the same dose of iodide of potassium. It should not be forgotten to administer the iodide in milk, in order to avoid any irritation of the gastric mucous membrane. Furthermore, it will be found that the administration of teaspoonful doses of bicarbonate of soda in water (preferably ærated) between meals, or better two hours after each meal will prevent iodic intoxication. The size of the dose of iodide of potassium must be governed entirely by each individual case, and its effects should be carefully watched in order to determine this point accurately.

The local treatment of rupia is of no small importance. To begin with, the crust should be removed, preferably with a bichloride poultice of a strength of about 1 in 1000. After this the floor of the ulcer, which is then exposed, should be cleansed with a 1 to 500 solution of bichloride. If the granulations be unhealthy in appearance, large and flabby, the walls of the ulcer everted and undermined, a good curetting will be of benefit. If the granulations appear sluggish, they should be stimulated with a solution of acid nitrate of mercury, one drachm to the ounce, lightly pencilled over the surface. If the granulations become too exuberant, they should be repressed, and for this purpose, there is no better means than by means of the caustic method. This is done by passing over the granulations a small, smooth, soft-pine paddle which has been dipped in nitric acid, c. p. This will not only repress the granulations, but will also act as a stimulant, and prevent the ulcerative process from extending any deeper. In any event, the best dressing to use is a bichloride gauze dressing which should be renewed daily. The gauze should be saturated with a one to one thousand solution of bichloride, and *not* covered with an impermeable dressing. A much better plan is to have the patient keep the gauze moist by occasionally dropping on some of the solution. If the ulcer takes on a good action, the dressing may consist of campho-phénique powder, which will form an artificial crust and lead to complete healing underneath it.

A careful attention to details and cleanliness is absolutely necessary. It may be found necessary to permit periods of rest in the course of the internal treatment, but it must never be forgotten that eternal vigilance is the price of a successful issue in every case of rupia.

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TRI-STATE MEDICAL SOCIETY.

The annual meeting of the Tri-State Medical Society of Iowa, Illinois and Missouri will be held at Chicago, April 7, 8 and 9, 1896. Without doubt this will be the greatest meeting ever held by this progressive organization. Doctor Robert H. Babcock, President, and Doctor George W. Cale, Secretary, have been working earnestly and successfully. Their efforts have been ably seconded by the committee of arrangements which is composed of Doctors Hugh T. Patrick, W. L. Baum and William H. Wilder. They are able to announce officially that surgical clinics will be held by Doctors Senn and Murphy and that papers will be read by a large number of prominent physicians.

LANGSDALE'S LANCET.

We are pleased with the initial number of Doctor Langsdale's new venture, the *Lancet*, and predict for it a career of usefulness. It is quite refreshing to get hold of so many good original articles. The editorials are interesting and the work of the Departmental Editors has been well done. Associated with Doctor Langsdale in the literary part of the *Lancet*, are Doctors Wainwright, Gayle, Jackson, Crowell, Ritter, Grove, Gaines, Punton, Gant and White—all good men well known to the profession of

Kansas City and the West. We are glad to see that Doctor Langsdale is proprietor of the journal which he edits. With us he believes that "medical journals should be owned by medical men." We wish the *Lancet* great success.

MEDICAL WOMEN AND THE ROYAL COLLEGE.

By a narrow majority the Royal College of Physicians of England has refused to admit women. Anent this action Mr. Malcolm Morris, editor of the *Practitioner*, says: "The obsolete controversial weapons used against the medical Amazons recall the bows and arrows of the Children of the Mist which so much amused Rittmaster Dugald Dalgetty. I confess I do not see why the women are so anxious to get into the College, unless it be for the satisfaction of capturing the last citadel of the profession. It is certain, however, that now the men have shown a wish to keep them out they will never rest till they get it. *Ce que femme veut.*

And why should they not be admitted? The College could not give them any professional privilege which is not already within their reach, nor would the possession of its diploma make them more formidable competitors in the struggle for life. I do not particularly like the medical woman in the abstract, but I see not the least reason why we should fear her in the concrete. The very disabilities which are somewhat unchivalrously thrown in her face should reassure those who are afraid that they will find their occupation gone if she be placed on the same footing as themselves. Of course the opponents of the women will indignantly deny that they are actuated by any fear of rivalry; it is all in the interest of the women themselves that the profession of medicine, with its difficulties, hardships, and perils, is to be jealously kept closed against them. These are noble sentiments—worthy of Joseph Surface himself. Not being a sentimental person, however, I say: Let the women have a fair field and no favour. If they are unfit for the profession, their unfitness will operate against their professional survival. Hitherto the hostility, open or veiled, with which their perfectly reasonable demands have been met by the mass of the profession has created an artificial feeling in their favour outside it, and has prevented them from finding their right level within it."

THE LINES OF MODERN THERAPY.

It needs no ghost to tell us that the advance of chemical physiology will within the next decade absolutely abrogate, repudiate and even condemn a vast number of empirical remedies that have had their ephemeral existence founded upon no firm physiological principle and resting for support upon the uncertain clinical reports of individual practitioners. Many a life has been lost by just such a system of practice as this.

Ill does it become us as the representatives of the standard medical profession; ill does it become us after thundering our anathemas against empiri-

cism, to prostitute our calling, and stultify our profession by following after the strange gods of empirical methods.

We are entering upon the dawn of a new medical era.

Physiology has pointed out the way of Pathology and we are to-day in the full posession of those factors of Therapeutics furnished by these great *organons* of the organism which will thoroughly winnow out the chaff from the wheat in the vast field of Therapeutics. The two lines upon which modern therapy is moving are:

1. Organic Cellular Activity or Physiologic Metamorphosis.
2. Inorganic Assimilation.

To the first class belong those remedial agents which act by direct physiologic substitution, or supply. The organism is full of *antitoxic* agents. If this were not so the thousands of toxic germs taken into the channels of the body would totally destroy its structure and arrest its functions. Under this head we have the nucleins, protonuclein, which is but a combination of the several nucleins of the body, antitoxine, the pathological erysipelatous germ and other germs of an antagonistic character.

Under the second head come those inorganic agents which enter directly into the blood and require no metabolism for assimilation. These concentrated phosphates as found in the various saline agents that are directly subject to osmosis, bring up the other end of the line of therapeutic action and complete the modern system of therapy.

It is thus that we look forward to a new era when Physiology and Pathology will suggest the Therapeutics of the future and empiricism with its legion of drugs will go "glimmering through the dream of things that were."

THOMAS OSMOND SUMMERS.

THE AMERICAN UNIVERSITY OF WASHINGTON, D. C.

Doctor C. B. Stemen, Dean of the Fort Wayne College of Medicine, and Editor of the *Fort Wayne Journal of Medical Sciences*, has been authorized to develop and organize the Medical Department of the American University, at Washington, D. C. In a recent editorial Doctor Stemen says:

"The medical department of this university will be *post graduate*. The purpose is not to interfere with the great number of medical colleges in this country but to take the students after they have passed through the course of study required by the American Medical College Association and give them advantages in original research and the training of specialties that cannot be given by any other institution in this country. The reason that this university will be able to offer such superior facilities is from the fact of the incomparable advantages for scientific and literary investigation presented by the General Government. American University life is

destined to center at the national capital, for, according to an act of Congress, the Technical Libraries, the Smithsonian Institute, the National Museum, the *Army* and *Navy Medical* Museum, the Department of Agriculture, etc., are thrown open to all scientific students without a dollar's cost. Here the student will find the best bacteriological laboratory in the world and every opportunity for original research. The medical department of the American University will receive students, young men and women, who have completed their course of study in some recognized, reputable medical college, and give them a training superior to any institution in this or any other country. The purpose is to give the same or better advantages than are now given in Europe. *Let us ask, why not?* With the great laboratories at the national capital and the facilities which this affords free of cost to the students, and the determination of the authorities of the university to spare neither time nor money to make it superior in every department, it will be just what the name indicates, *American University*. The professors who will be employed to teach will be only such as are recognized as the best in this country, and all members in the medical profession know that we have teachers who are the equal of those in any country, men of whom we feel justly proud for their superior attainments in their chosen profession."

THE ETIOLOGY OF MALIGNANT DISEASES.

Of all the departments of surgical pathology, that relating to tumors, and more especially to malignant disease, is the one most neglected.

Investigators have bent their energies in the direction of the inflammatory and infectious diseases, while not a few have devoted their time to the improvement of operative technique, and, too, with excellent results.

Until recently, pathologists were inclined to accept wholly or in part either the theories of Virchow, which were elaborated in his great work on Cellular Pathology, which has for its motto *Omnis cellula e cellula*, and in which he teaches that an epithelial tumor can develop from connective tissue; or that of Cohnheim, who claims that tumors never develop from mature tissue, but always from a matrix of embryonic tissue, thus referring every tumor to its proper embryonic layer. Senn, the exponent of advanced surgical pathology in America, rather inclines to the views of Cohnheim, but adds the following: "The essential tumor-matrix may be composed of embryonic cells, the offspring of mature cells which for some reason have failed to undergo transformation into tissue of a higher type, and which may remain in a latent, immature state for an indefinite period of time, to become, under the influence of either hereditary or acquired exciting causes, the essential starting point of a tumor."

Thus we are presented with two propositions; 1st, it is absolutely necessary, in order to have the foundation for a tumor, that embryonal cell matrix should be present; and, 2d, this may be present and will remain harmless for an indefinite period of time, unless excited to growth by some congenital or post-natal cause.

We can no longer overlook the fact that heredity has a place in the etiology of malignant tumors. The most notable instance of hereditary predisposition to carcinoma is reported by Broca (Pathology and Surgical Treatment of Tumors, Senn): In the first generation the mother died of cancer of the breast. She had four daughters, two of whom died of cancer of the breast, and two of cancer of the liver. These were all married, and one of them left a family of five daughters and two sons, constituting the third generation. The first son died in infancy, second son died of cancer of the stomach, while three daughters died of cancer of the breast, and the fourth of cancer of the liver; the fifth escaped the disease. The next generation consisted of five daughters and two sons. The sons remained free from cancer, while the first daughter died from cancer of the breast, she herself being the mother of five daughters; three of these died of cancer of the breast, one of cancer of the uterus, and the last from cancer of the liver. Sir James Paget has also done some valuable work in this direction.

It was formerly claimed that the poorer classes were more frequently the subjects of tumors, but from statistics furnished by several observers it will be seen that the reverse is the case, and that the increase in the number of malignant growths appears to be proportionate to the increasing prosperity and advanced modes of life of the masses. The male sex is more predisposed to tumor formation than is the female. This is partly because of the more active habits of the former, which naturally subject them to exciting causes, which play an important part in the etiology of tumors later in life. Varieties differ in the two sexes, however, as we find the glandular carcinoma more frequent in the female, while carcinoma of the skin is found more often in the male. Heredity affects both sexes equally.

It will be found that prolonged irritation is often the cause of a malignant growth. Epithelioma of the lip is not infrequently found in smokers of clay pipes, in which the combined irritation of the nicotine and the hot pipe-stem may be looked upon as the exciting causes. The exciting cause of cancer of the tongue has been found to be the prolonged irritation of a carious tooth. While we must admit the influence of inflammation as a stimulant to the growth of pre-existing embryonic cells, still it can be said positively that it is never the cause of tumor formation. Dennis, in an excellent article on "The Etiology, Diagnosis and Treatment of Malignant Disease" (*Annals of Surgery*, October, 1895), details a number of cases in which are shown the influence of mechanical injuries on the development of tumor, especially sarcoma of bone. Nine cases of injury to bone are mentioned, in which well developed sarcomatous tumors appeared, the longest period (except two) being six months from the date of injury. He gives another series, in which peripheral irritation had

much to do with the development of malignant tumors; for example: epitheliomata following long continued irritation of discharges from sinuses.

Experiments are now being made by several Italians to prove that malignant disease is dependent upon micro-organisms of the class of blastomycetes. While these micro-organisms possess the power of producing tumor-like growths in animals, it only goes to show that these germs may be pathogenic in man and animals; in the human subject because Roncali claims to have found the same parasite in two cases of adeno-carcinoma of the ovary. Senn says: "The negative results which have followed thousands of attempts to reproduce carcinoma and sarcoma by implantation of fragments of tumor tissue in different animals, furnish the most convincing proof of the non-contagiousness and non-parasitic character of malignant tumors. There is not a single well-authenticated case on record in which the disease was transmitted from man to man or from animal to animal by contagion."

The following questions are very aptly asked by Doctor Dennis in the article above referred to:

1. Has traumatism or irritation anything to do with the etiology of malignant disease?

2. If so, what is the relation which the cause bears to the effect?

3. If not, how can the cases which have been reported in this paper be explained?

4. If it is admitted that traumatism or irritation, separately or together, bear etiological relations to these tumors, how can the presence of these malignant tumors in the absence of these agencies be explained?

5. If the theory that traumatism or irritation can develop a malignant tumor is accepted, does not the acceptance of that theory demonstrate the purely local origin of these neoplasms?

6. Do not the cases operated upon early demonstrate the correctness of the theory that by removal of the local infection, constitutional infection can be avoided?

GEORGE W. CALE.

IMPURE DAIRIES.

Doctor Starkloff, Health Commissioner of Saint Louis, is waging a war of extermination against the numerous filthy dairies and unscrupulous dairymen in this city. We have no doubt the Health Commissioner will be successful. He deserves the support of all good citizens. The profession is with him.

IN THE PROFESSIONAL EYE

It may not be generally known that the celebrated English poet, author of *The Light of Asia*, Sir Edwin Arnold, is a graduate in medicine; such is, however, the case and last year he delivered the introductory address to the medical class at St. Thomas's Hospital. This included a tribute to Morton, the discoverer of anæsthesia, as well as a hitherto unpublished poem to Florence Nightingale. These two passages of his address are worthy of reproduction here:

SIR EDWIN ARNOLD'S TRIBUTE TO FLORENCE NIGHTINGALE.

Let me take permission to tell you that what fills my own heart most with thankfulness, and causes me chiefly to congratulate you on these new days of therapeutic science, is the benign, the blessed discovery, and the now almost universal employment of anæsthetics. If you look into the history of that happy revolution, you will be warned against depreciating fresh ideas by noticing how sadly slow men are to take the hints which nature gives to them of her very choicest treasures of resource. Why did not anyone act upon what Sir Humphrey Davy had so long before learned and imparted about the properties of nitrous oxide? The key was already there, but not until many years afterwards did an almost casual hand (that of an American dentist) fit it into the golden door behind which sat waiting an angel of pity, kinder and more powerful than any Arabian fairy suddenly revealed in her divine beauty and bountifulness to any prince or magician of the *Thousand and One Nights*. Is there anything in human history which more sternly teaches that man must win every boon of Nature by his own ceaseless striving than that this simple chemical and physiological secret of chloroform should have lurked so sadly long in its easy formula, undeciphered, through all those waiting generations when pain was an omnipresent tyrant, whom science could not control, and the operating room a torture chamber, dreaded almost as much by the surgeon as by the sufferer? Think of those gallant sailors of Nelson at Trafalgar, whose bleeding stumps in the gloom of the orlop deck, were plunged into hot pitch to stay the hemorrhage! One would almost expect that, pity for such brave men, and for the countless tender women and children who age after age, so hopelessly endured, Telesphorus, the God of Healing, or Nature herself, would have burst the iron law of her impassive silence, and as Helen did in the Odyssey for the sorely-tried Greeks, have poured this nepenthe into the bitter cup of mortal life. I can remember the poetess, Eliza Cook, whom as a boy I knew, when chloroform was still unknown, writing how

Lips that blench not in the reeling strife
Turn silent and white from the surgeon's knife.

Not until 1847, although Humphrey Davy has been so near the revelation, did the anæsthetic age commence, giving to your Art a sure control of anguish; to its boldest practice confidence, quiet, and leisure; and to those who have to lie under that knife a sweet and complete oblivion. I have myself known what it is to pass, fearless of the kind steel, into that world of black velvet tranquility, of which your magic drugs now keep the gate; and to awake as good as healed, grateful beyond words for the soft spell of enchanted peace, and the sure and faithful skill.

I have met in this great Palace of Pain gentle and graceful presences which leads me to allude to one more great and happy change among many that has come upon your profession; I mean the education and employment of professional female nurses. A great physician once said in my hearing that the three most sovereign medicines he knew were hot water, fresh air, and good nursing. In your fathers' day, gentlemen, we had no good nursing; we had Mrs. Gamp and Mrs. Betsey Prig, or else heavy-handed and heavy-footed female attendants, very different in mind and manner and influence from the lightly-moving and softly-speaking woman, whose carefulness—intelligent, pitiful, but tranquil, trained, and governed—now smooths every sick pillow, and carries out faithfully and fearlessly the ordinances of the doctor. I do not know whether you, the surgeons and physicians, or we, your patients in *posse* or *esse*, are most to be felicitated upon this admirable revolution in the hospital ward and the sick room. There is no doubt that it was primarily due to the example of that most compassionate and noble-hearted woman, Florence Nightingale, who went at the head of a band of nurses, many of good birth, to the Crimean war, and by demonstrating there and afterwards the immense advantages of skilled and high-class nursing, gave to her age the blessing of this modern system and to her sex a new, a suitable, and a most honorable vocation. You have greeted the name of Miss Nightingale with instant and hearty applause. That generous tribute to her—who in her old age and retirement is even now the center of so much silent national affection—encourages me to remember that I am, after all, poet by nature and lecturer only by accident, and that in those dark hours of the Crimean war I wrote certain verses, which are perhaps brief enough to be on this occasion acceptable. If I am so bold as to revive them from their unprinted oblivion, it is because what they express of admiration and gratitude is applicable in a great degree to every good and dutiful nurse, here and elsewhere, who loyally discharges this new and most womanly function.

If on this verse of mine
Those eyes shall ever shine
Whereto sore-wounded men have looked for life,
Think not that, for a rhyme,
Nor yet to suit the time,
I name thy name, best Victress in the strife,
But let it serve to say
That when men kneel to pray
Prayers rise for thee thine ear can never know,
And that thy gentle deed
For Heaven and for our need
Is in all hearts as deep as Love can go!

'Tis good that thy name springs
From two of Earth's fair things,
A stately city, and a sweet-voiced Bird;
'Tis well that, in all homes
Where thy kind story comes,
And brave eyes fill, that pleasant sounds be heard,
Oh Voice! in night of fear
Like Night's birds—sweet to hear
Oh Strong Heart! set like city on a hill.
Ah! Watcher! worn and pale
Dear Florence Nightingale!
We give thee thanks for thy good work and will!
England is glad of thee,
Christ, for thy Charity
Take thee to joy when heart and hand are still!

HISTORICAL SKETCH.

WILLIAM HARVEY.—1578-1657.

By James Moores Ball, M. D., of Saint Louis.

THE immortal discoverer of the circulation of the blood, the son of a yeoman, was born in Kent, England, in 1578. He was graduated from Cambridge in 1597; the following year he went to Padua and listened to many eminent teachers in the Italian school, of whom Fabricius, of Aquapendente, Professor of Anatomy, and Julius Casserius, of Placentia, Professor of Surgery, were then the most renowned. In Padua, Harvey spent four years in medical study, graduating as Doctor of Physic in 1602, with license to practice and teach the art of physic in all lands and every seat of learning. The same year he received a medical degree from Cambridge. In his twenty-sixth year he began practice in London. Harvey joined the College of Physicians in 1607 and two years later was made physician to St. Bartholomew's Hospital. In his thirty-seventh year he delivered the lectures on anatomy and surgery at the College of Physicians.

It is supposed that in this year, 1616, he taught his views regarding the circulation. However, it was not until 1628 that he gave to the world a little volume containing an account of his discovery. The world was not ready to believe that the doctrines of the ancients were wrong.

Aubrey, a tattling biographer, tells us that after Harvey's book came out "he fell mightily in his practice; 'twas believed by the vulgar that he was crack-brained and that all the physitians were against him." This book, entitled, *Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus*, was printed at Frankfort-on-the-Maine and was dedicated to Prince Charles and Dr. Argent, President of the Royal College of Physicians. In this work he says:

"I have already and repeatedly presented you, my learned friends, with my new views of the motion and function of the heart, in my anatomical lectures; but having now for nine years and more confirmed these views by multiplied demonstrations in your presence, illustrated them by arguments and freed them from the objections of the most learned and skillful anatomists, I at length yielded to the requests, I might say entreaties, of many, and here present them for general consideration in this treatise."

In the year 1651, when in his seventy-third year, Harvey gave to the world another monumental work, which was entitled, *De Generatione Animalium*. Appointed physician extraordinary to James I. in 1618, Harvey was afterwards physician to the ill-fated Charles. Many distinguished persons came under his professional care, among whom Francis Bacon and the Duke of Richmond are mentioned. Harvey accompanied Charles I. to Scotland and was with the king at Edgehill, having the young princes under his care. It was during the civil war that Harvey's house at Whitehall was searched, furniture destroyed and valuable anatomical preparations ruined. The loss of money did not weigh heavily on the shoulders of this great man, but his sorrow over the destruction of manuscripts and museum was poignant. "And while I speak of these matters,"

he says in his work on Generation, "let gentle minds forgive me if recalling the irreparable injuries I have suffered, I here give vent to a sigh. This is the cause of my sorrow: Whilst in attendance upon his Majesty, the King, during our late troubles and more than civil wars, not only with the permission, but by the command of Parliament, certain rapacious hands stripped not only my house of all its furniture, but what is subject of far greater regret with me, my enemies extracted from my museum the fruits of many years of toil."

Harvey was a modest man. When in 1654 he was unanimously chosen to the Presidency of the Royal College of Physicians, he returned thanks for the honor done him, but owing to age and infirmities declined the office.

WILLIAM HARVEY.

Two years before this time the College placed his statue in their hall. In appreciation of this, Harvey erected an addition to the College of Physicians. This building long since destroyed, was, as Aubrey tells us, "a noble building of Roman architecture." Being childless, Harvey left the bulk of his fortune to the Royal College, stipulating that a solemn oration should be delivered annually, commemorative of those who had advanced the interests of the College or had added aught to the sum of medical science. Thus originated the Harveyan lectures or orations, which constitute a valuable mass of literature.

Aubrey has left us a valuable description of Harvey: "In person he was not tall, but of the lowest stature; round faced, olivaster complexion,

little eyes, round, very black, full of spirit; his hair black as a raven but quite white twenty years before his death." Cornelius Jansen has given us the best oil portrait of him. This can still be seen in the College of Physicians, having been rescued from the great fire of 1666. Harvey died in his eightieth year. He lies buried in a vault at Hamstead, Essex, built by his brother Eliab; he is rapt in lead and on his breast in large letters could be read the simple inscription: DR. WILLIAM HARVEY.

DISCOVERY OF THE CIRCULATION.

"The blood in the animal body," says Harvey, "is subjected to a certain circular motion; that this motion is incessant, and that the pulse or contraction of the heart is its sole efficient cause." (Exerc., cap. xiv. ad fin.) To record the history of the discovery of the circulation would fill a volume. Many men contributed to its consummation. Master minds in all ages grappled with the problem and twenty centuries of error were routed by the patience, genius and work of Harvey. Erasistratus of Alexandria (300 to 260 B. C.), a learned Greek physician, saw the arteries as air vessels and the veins as the only blood vessels. Respiration filled the arteries with air, distended them and thus caused the pulse. The veins carried blood to the extremities. When the arteries were filled with air, thus forming the vital spirits, and the veins were laden with blood, health existed. If blood should perchance get into the arteries, fever and inflammation would develop. Such errors were taught for four hundred years. It was not until the time of Galen (A. D. 131) that it was shown that the arteries are blood-carrying in life and empty after death. Galen by vivisection proved the statements of Erasistratus to be incorrect. The followers of the ancient doctrine were not ready to receive the truth. Galen held that the office of respiration was to cool the blood, and this theory, strange to say, was upheld in the last century by the renowned Dutch physiologist, Albrecht von Haller. Galen distinguished two kinds of blood— a red or spiritual and a black or venous. The one he found in the arteries and left ventricle, the other in the veins and right ventricle. The septum between the ventricles was to him a sieve through which admixture of the two kinds of blood took place. He taught that arterial blood was used to nourish delicate tissues like the lungs, while venous blood was for use in grosser organs like the liver. For a thousand years the Galenic physiology held full sway in the schools. No one dared to contradict the words of the master, and Hippocrates and Galen were supposed to have reached the limit of human learning. However, light came at last, only in small and flickering rays. Early in the fourteenth century (A. D. 1315) Mundinus of Bologna dared to dissect the human body. Looking with the eyes of faith he saw the ventricular septum pierced with foramina and a score of writers who followed him repeated the error.

The first of the mediæval anatomists to deviate from the Galenic teaching was Berengario of Carpi, in Italy. He was a professor at the medical school of Bologna from 1502 to 1527. He dissected swine and later the human subject; first described the os basilare and sphenoidal sinus, the appendix vermiformis, and was the first to give a detailed description of many parts of the body. He also taught that the ventricular septum contained no pores, thus directly contradicting the teachings of Galen. Prudent man that he was, Berengario couched his statement in moderate

terms, saying, that the foramina could be seen in man only with great difficulty (*sed in homine cum maximum difficultate videntur*). At this time to deny the authority of Galen was scarcely less a crime than to deny the existence of God. Berengario was the forerunner of Vesalius. This man—the founder of anatomy—in the first edition of his matchless treatise (*De Corporis Humani Fabrica, 1543*) fell into the common error of describing the ventricular septum as containing foramina; in the second edition (1555) he distinctly and emphatically states that the septum is solid, that the blood does not pass through it and that Galen was in error. Thus another great truth was heralded to the world. The next important observation was that made by the unfortunate Michael Servetus who, in 1553, printed a theological treatise for which he was burned. Here it is necessary to say only that Servetus, theologian, physician, savant, thoroughly understood the circulation through the lungs but was ignorant of the general circulation—a wonderful state of affairs. His book suppressed by fire—many of the copies being used as fuel to destroy their author—the discovery of the lesser circulation was known to Harvey only through the writings of Realdus Columbus. His book, *De Re Anatomica*, appeared in 1559, and contained a lucid description of the pulmonary circulation. The third person named as the discoverer of the lesser circulation is Andreas Cæsalpinus (1519-1603) who first used the expression: "Circulation of the blood." Of all the predecessors of Harvey, he came nearest to the truth. "The blood conducted to the heart by the veins," says Cæsalpinus, "receives there its perfection, and this perfection acquired, it is carried by the arteries to all parts of the body." Although he held that only a portion of the blood passed through the lungs, another part entering the pores of the ventricular septum, yet we must acknowledge that this old Italian anatomist reached the very boundaries of a mighty discovery. His countrymen with patriotic ardor yet claim for him the honor of the discovery of the circulation of the blood. In the University of Rome there is a monument erected in his honor. Another Italian anatomist, Fabrizio or Fabricius, in 1574, discovered the valves in the whole system of veins and, although he knew that the flow and ebb of the blood as taught by Galen was incorrect, yet he failed to understand the magnitude of his discovery. Among the students to whom Fabrizio demonstrated the valves was Harvey. Fabrizio was not the first to observe the valves in the veins—they had been mentioned previously by Sylvius, Eustachius and Sarpi. Fabricius, however, was the first to describe them minutely. He believed that the valves were of use to retard the flow of blood in the veins from the center to the periphery of the body so that the several parts might have time to gather up nutriment.

At the time Harvey came into the medical arena a great discovery was imminent. In a measure the way for it had been paved by his predecessors. Galen corrected a few errors and added much to the sum of anatomical mistakes; Vesalius, thirteen centuries later, showed the Galenic physiology and anatomy to be wrong; Servetus and Columbus had described correctly the course of the pulmonary circulation and Fabricius while not appreciating their importance described minutely the valves in the veins. Nevertheless almost nothing had been accomplished. The motive power of the blood was supposed to reside not in the heart, but in the lungs; and although many anatomical facts bearing on the question of the circulation had been

recorded, yet they were simply barren statements. No man had yet seen or described or imagined that which Harvey evolved. All honor be to those industrious old anatomists of the middle ages; and yet far above all others we find Harvey. He alone brought order out of chaos; he it was who founded modern physiology. Compared with the discovery of the circulation of the blood, all other discoveries in medicine are insignificant. The attempts which have been made, not only in his own day, but more recently, to rob Harvey of his honors are certainly ill-advised. Harvey, honorable man that he was, never claimed as his own any discovery made by another. He speaks of his old teacher Fabricius in loving terms, crediting him with the discovery of valves in the veins.

The world was not ready for the new doctrine which was everywhere denounced by the learned doctors. After twenty-six years of work Harvey found that his book was scorned, his discovery denounced as untruth, and himself a butt for ridicule. The epiteth "Circulator" in its Latin invidious meaning (a quack) was applied to him. His practice grew less and for years his life was made uncomfortable by the disputations of those who could not grasp the truth. A host of opponents sprang up, among whom the most potent were Primrose in Scotland, Parisanus of Venice, Hoffman of Nürnberg, Veslingius of Padua, and Riolanus and Guy Patin, of Paris. Defenders, too, of the new discovery were not wanting. Sylvius de la Böe, the most attractive and eloquent medical teacher of his day, was an early convert. Rodger Drake and Sir George Ent, in England; James de Back, of Rotterdam; Werner Rolfink, of Jena; Réne Descartes, the discoverer of the laws of refraction of light, were powerful defenders of the Harveyan doctrine. By order of Louis XIV. the new doctrine was taught by Dionis in the *Jardin du Roi*. Unlike most great men Harvey lived long enough to see his discovery everywhere received as true. It was not until a fourth of a century had passed that Italy, the country which gave us the most eminent of mediæval anatomists; which claims for one of her own sons the honor of the discovery, was ready to admit the truth of the new doctrine. About the same time John Pecquet, of Dieppe, who discovered the receptacle of the chyle in 1648, and Thomas Bartholin, one of the discoverers of the lymphatics, surrendered to the Harveyan teachings. When Plempius, of Louvain, who had fought Descartes so valiantly, made his retraction, the victory was complete. "This discovery did not please me at all at first," says Plempius, "as I publicly testified both by word of mouth and in my writings; but by-and-by, when I gave myself up with firmer purpose to refute and expose it, lo! I refute and expose myself, so convincing, not to say merely persuasive, are the arguments of the author. I examined the whole thing anew and with greater care, and, having at length made the dissection of a few live dogs, I find that all his statements are most true." Unfortunately, not all opponents were as frank as Plempius. Many of them, like Primerose, attempted to oppose Harvey, not by experiments on living animals, but by texts from the ancients and diatribes from the moderns. His book abounded in denials and perversions and does not once mention experimentation. Having seen the barren nature of his essay, Harvey did not deign to reply. Parisanus, of Venice, would have been forgotten long since if he had not attempted to undo the new discovery. Like others who opposed the great physiologist, "he speaks an infinite deal of nothing;

more than any man in all Venice." Caspar Hoffman, of Nürnberg, a fellow-student with Harvey at Padua, was answered by him. Harvey chanced to be in Nürnberg and undertook to convince his opponent by actual demonstration, but in vain. Joannes Veslingius, of Padua, one of the most learned anatomists and botanists of the age, addressed two letters to Harvey contradicting his views. He compliments Harvey on his work on generation and has learned much about the heart from him. Yet he cannot understand why arterial blood should have one color and venous another. This, indeed, was one of the great obstacles the Harveyan doctrine had to encounter.

Had the book of Servetus not been burned, the pulmonary circulation, with the attendant changes in color, would have been understood. Harvey, however, was not to battle unaided. René Descartes, eminent as a physicist and mathematician, accepted Harvey's views and fought valiantly for the truth. "For an explanation of the reason why the blood of the veins is not exhausted by passing continually into the heart," says Descartes, "I must refer to the work of an English physician, to whom belongs the honour of having first shown that the course of the blood in the body is nothing less than a kind of perpetual movement in a circle." One of Harvey's own countrymen, Sir George Ent, a man of scholarly attainments, in 1641 issued *An Apology for the Circulation of the Blood*, in which the new doctrine is defended in a masterly manner. Harvey, while morally certain of the existence of the circulation, did not see the columns of blood in the capillaries. These minute vessels were demonstrated first by Marcellus Malpighius (1628-1694), who, in 1661, discovered the capillary circulation in the lungs and mesentery of frogs. Four years later he saw the blood corpuscles. The brilliant Italian anatomist, for whom the rete Malpighii of the skin is named, supplied the one link missing in the chain forged by Harvey. Already, in 1622, Asellius had discovered the lacteals; Pecquet, in 1648, had seen the receptaculum chyli; and about the middle of the seventeenth century Rudbeck and Bartholin described the lymphatics. Harvey's induction was then complete.

SONNET.

Thought and Feeling.

Oh human heart, how do thy pulses throb
  Through all the tortuous channels of the brain!
  Thought takes its hues from pleasure or from pain,
And finds expression through a smile or sob.
Laughs with the eyes, sneers with the lip upturned,
  Gives vent to anger with the darksome frown,
  Speaks love with fond caresses, soft as down,
Inflames with blushes when with passion burned.
The mind conceives, but every thought is born
  Like man himself, through passion's way to light
  Feeds on the milk of feeling and gains might
To brave resistance or to conquer scorn.
Failing in this, thought perishes insane,
For naught but feeling can its life sustain.

THOMAS OSMOND SUMMERS.

ACADEMICAL NOTES.

REFLECTIONS FROM THE SAINT LOUIS ACADEMY OF MEDICAL AND SURGICAL SCIENCES.

A recent notice in the *American Therapist*, of which Doctor John Aulde, of Philadelphia, is editor, says:

"St. Louis now has an Academy of Medical and Surgical Sciences; membership is limited to fifty, and to attain it the aspirant must furnish a satisfactory thesis; meetings are held weekly and members must appear *Costume de Riguer, i. e.,* in "swallow-tail." Of the officers at least three are late arrivals in the "Future Great" city. New blood, new standards! The Mound City is to be lifted!"

The *Ohio Medical Journal* speaks of the Academy as "Very Upper Crusty." We would remind the brother that often the best part of the pie is the "upper crust." A proposition has been made to hold future meetings of the Academy in the spacious and elegant West End Hotel.

On January 10th an elaborate paper on Syphilitic Insanity was read by Doctor Arthur E. Mink. The author has had a large experience in this line. Doubtless his paper will be read with interest by alienists and neurologists.

A delightful meeting of the Academy was that held at the residence of Dr. G. W. Cale, on January 17th. Doctors William Porter and Roland Hill were among the guests.

On January 24, the Academy met at the residence of Doctor Thomas Osmond Summers and listened to a paper on Extra-Genital Chancres by Doctor George Howard Thompson. Mrs. Summers provided an elegant collation. Doctor Kate C. Spain and Miss Haag, medical student, assisted the hostess.

On January 31, the Academy met at the residence of Doctor James Moores Ball. Aside from the members, there were present as guests Doctors W. G. Moore, Philip Scholz, A. A. Henske, Edward Borck, J. G. Ehrhardt, W. C. Ussery, F. W. Hilscher and H. T. Taylor. Doctor H. P. Wells presented a paper on Vaginal Hysterectomy with specimen. Several new names were presented for membership.

On Friday, February 7th, the Academicians listened to a Symposium on Brain Tumor. The subject was assigned as follows: Clinical History, Frank P. Norbury; Eye Symptoms, James Moores Ball; Diagnosis, Arthur E. Mink; Pathology, Emory Lanphear; Surgical Treatment, George W. Cale. A general invitation was given to the profession to attend this meeting and many visitors were present.

The longer the Academy lives the larger it grows. Despite the predictions of pessimists the Saint Louis Academy of Medical and Surgical Sciences is a permanent organization.

The Academy is steadily accumulating a museum of great value. As a rule the specimens presented at the meetings are turned over to the Curator of the Academy.

As soon as the question of a permanent home for the Academy is decided, steps will be taken to form a library. Already a large number of volumes are promised and it is thought that there will be no difficulty in securing a valuable collection of works of reference—something badly needed in Saint Louis.

FORMULAE.

Herpes Zoster—

℞ Starch ..... ℥iv.
Zinc oxide ..... ℥i–ʒiv.
Camphor ..... gr. iv.–gr. xij.
Opium ..... gr. iv.
M.

For the accompanying neuralgic pain a pill of the following composition may be administered three or four times a day:

℞ Extract of stramonium,
Extract of hyoscyamus ..... aa gr. 1-6.
Extract of belladonna ..... gr. 1-3.
M.

—Robin.

Parasiticide—

℞ Spirits of camphor ..... 4.200 grams.
Glycerin ..... 1.000 "
Essence of turpentine ..... .180 "
Mercury bichloride ..... 6.000 "

—Hallopeau.

Hay Fever—

℞ Liq. pot. arsenitis,
Ext. nucis vomicæ fl.
Ext. cinchonæ fl. (detannated) ..... aa ℥vi.
Alcoholis ..... ℥iij.
Syr. aurantii ..... q. s. ad. ℥xvi.
M. Sig.—One to two teaspoonfuls, taken three times daily, with or after meals.

—Hall.

Chloasma of Pregnancy—

℞ Zinci oxidi ..... gr. vi.
Hydrarg. ammon ..... gr. ij.
Ol. theobrom ..... ℥v.
Ol. rici ..... ℥v.
Ess. ros ..... gtt. xx.
M. Sig.—Apply to the face night and morning.

—Hare.

Blepharitis—

℞ Red oxide of mercury ..... grs. x.
Vaseline ..... ℥ss.
M. Sig.—Apply to the edge of lid at bed-time.

Or,

℞ Ammoniated mercury ..... grs. xx.
Powdered camphor ..... grs. x.
Vaseline ..... fl. ℥ss.
M. Sig.—Apply at night

Or,

℞ Solution of subacetate of lead ..... gtts. x.
Ointment of rose water ..... ℥iij.
M. Sig.—To be used for more chronic forms of marginal blepharitis.

—Mittendorf.

Insanity—"He who inherits a predisposition to insanity does not necessarily get it from a parent who happens to be insane—no, not even though his father was insane when he was begotten, or though in madness his mother conceived him. He gets it from where his parent got it—from the insane strain in the family stock."—MAUDSLEY.

Diet in Senile Heart—1. There must never be less than five hours between each meal. 2. No solid food is ever to be taken between meals. 3. All those with weak hearts should have their principal meal in the middle of the day. 4. All those with weak hearts should have their meals as dry as possible.—BALFOUR.

For Whooping Cough—

℞ Bromoform ..... gtt. xl.
Rectified spirit ..... fl. ℥iv.
Distilled water ..... fl. ℥i.
Syrup of tolu, sufficient to make ..... fl. ℥iij.
M. Sig.—One fluid ounce in water every three hours.

—*Monatsh. f. prakt. Derm.*

For Acne Vulgaris—

℞ Camphoræ,
Acid. salicylic ..... aa grs. ivss.–viiss.
Saponis medicin ..... grs. xv.
Zinci oxidi ..... ℥ss.
Sulphur. præcip ..... ℥iiss.
Olei physeteris ..... ℥iij.
M. fiat unguentum. Sig.—Apply topically at night.

—BOECK.

For Pulmonary Tuberculosis.—S. Solis-Cohen (*Philadelphia Polyclinic*, vol. iii., No. 28, p. 276 and No. 39, p. 386) recommends the following formula in cases of pulmonary tuberculosis presenting evidence of breaking down of tissue, or in which signs or symptoms of catarrhal processes in any portion of the air-passages are present, or in which there is continuous elevation of temperature or intermittent or remittent fever, exceeding 99.5° F:

℞ Creosoti (Beechwood) ..... mxxx-lxxx.
Tinct. Cardamomi ..... ℥ix.
Glycerini ..... ℥ij.
Alcoholis, q.s. ad ..... ℥iv.
M. S.—Two teaspoonfuls in water after meals.

Note—To the glycerine add the creosote, then the tincture of cardomoms and alcohol. The smaller dose of creosote is used at first, and the quantity gradually increased until five drops, four times a day, is reached as a maximum.

For Frost-bite.—In the treatment of frost-bite, Boeck (*Monatshefte f. Praktische Dermatologie*, in *Med. News*) recommends the following formula:

Take—Ichthyol, Resorcin, Tannic acid, } of each 1.00.
Water, 5.00. Mix.
Apply with a brush at night.

Should this for some reason or other be objectionable, the following formula may be substituted:

Take—Resorcin, 2.00.
Mucilage of gum arabic, Water, } each 5.00.
Powdered talc, 1.00. Mix.
Apply topically with a brush.

REPORT ON PEDIATRICS.

By Roland Hill, M. D., C. M., of St. Louis.

Diphtheria Antitoxin Serum. The following interesting history of this important medical discovery is taken from the report of M. Armand Ruffer, M. D., in the *Medical Annual* for 1895.

Some years ago the true cause of diphtheria was discovered by Löffler to be a specific bacillus, now commonly called Löffler's bacillus. Several years after this, in 1887, Roux and Yersin, two French observers, showed that the poisons secreted by the diphtheria bacillus in artificial cultures, when injected into the lower animals, produced all the symptoms of diphtheria, and that in man the general symptoms of this disease were due to the absorption of these poisons. In 1890 Behring published his discoveries on the action of the serum of immune animals on the diphtheria poison. He found that the serum of a guinea pig which had been artificially protected against diphtheria had the power of saving any animal when it was injected at the same time with a fatal dose of diphtheria poison. He saw that by successive inoculations he could produce a serum of great therapeutic action. In order to apply this serum to man it must be obtained in larger quantities than the guinea pig could supply and thus the horse was selected. The immunization of the horse and preparation of the serum is carried on at the British Institute of Preventive Medicine in the following manner: A healthy horse is selected and thoroughly tested for disease. When found to be healthy a quarter of a cubic centimeter of filtered culture of tubercle bacillus is injected under the skin. This often causes a swelling as large as a fist, but no severe constitutional symptoms. It is often accompanied by a rise of temperature of one degree which lasts from six to eight hours.

After the lapse of three or four days another dose of the same size is injected. At the end of a week 1 c. c. is injected, and if not followed by constitutional symptoms that dose is repeated three times during the second week. Five c. c. are injected three times during the third week, and in this way the dose is raised from time to time until at the end of six weeks the animal receives a hundred cubic centimeters three times a week. When the horse is thus immunized the next step is the withdrawal of the serum. This is done by inserting a sterilized canula into the jugular vein and allowing the blood to flow through a rubber tube into sterilized bottles. In this way six to fifteen litres of blood may be withdrawn without the animal showing any signs of weakness. The blood thus withdrawn is placed on ice until the serum is separated and when this has taken place the serum is poured off with antiseptic precautions into sterilized bottles which are corked with sterilized corks and sealed. A piece of camphor is added as an antiseptic.

In order to be sure of its purity a tube of serum is placed in a chamber at 38° C. for twenty-four hours and if no bacterial growth has taken place we may be sure of its purity. Before using the serum its strength must be ascertained. This is done by mixing known quantities of the serum with known quantities of the diphtheria toxines of a certain strength and then injecting under the skin of a guinea pig. If enough serum has been added no symptoms whatever should follow, and the quantity necessary to prevent the recurrence of symptoms will depend on the strength of the serum. Thus the serum of one of our horses is of such strength that .0001 c.c. of it will neutralize a dose of toxine which would prove fatal to a guinea pig in twenty-four hours. Of course it will depend on whether the serum is inoculated at the same time as the toxine or sometime afterwards. Thus if .0001 c.c. will save a guinea pig at the same time with the toxine, 5 c.c., that is, 5000 times that dose will be necessary if eleven hours be allowed to elapse from the injection of the toxine to the inoculation of the serum. It is obvious therefore if a child has been ill for some days, a larger dose is necessary, usually, 5 to 20 c.c. Experimentally it has been established that if one waits too long, no amount of the remedy will save the animal and the same is equally true of a human patient.

Typhoid Fever in Young Children. This is a subject that has been receiving considerable attention from the pediatric societies of late and many proofs have been furnished to show that this disease is extremely rare under three years of age. The December number of the *Archives of Pediatrics* gives very strong evidence on this point. Thus the records of four of the largest childrens' hospitals of the country show that not a single patient under three years of age has been admitted for typhoid fever in many years. In the New York Foundling Hospital not a single case has been seen for twenty years, the facts being vouched for by Drs. Northrup, O'Dwyer and J. Lewis Smith. Why children at this age, when so susceptible to other intestinal diseases, should be practically immune from typhoid fever is not known.

A Case of Inguinal Hernia Containing the Vermiform Appendix is reported by Dr. Roberts in the *Archives of Pediatrics*. The patient was a child one year and three months old. The occurrence of strangulation demanded immediate operation, and the hernial sac was found to contain the vermiform appendix and cæcum. Protruding from the posterior wall of the appendix was an ordinary brass pin, the head being within the cæcum and the point sticking out. The child made an uninterrupted recovery.

St. Louis Medical Society.—At the annual election held December 28th, the following officers were elected: President, Dr. W. G. Moore; Vice-President, Dr. A. C. Robinson; Treasurer, Dr. A. R. Kieffer; Secretary, Dr. J. Ellis Jennings; Recording Secretary, Dr. J. H. Cummings.

CORRESPONDENCE.

MISSOURI STATE MEDICAL ASSOCIATION.

EDITOR OF TRI-STATE JOURNAL:

Allow me through your journal to call the attention of members of the medical profession of Missouri to Article III., Constitution of the Missouri State Medical Association, which reads as follows: Members of this association shall consist of the classes, to-wit:

1st. Delegates.

2d. Honorary members.

3d. Members by invitation.

4th. Permanent members; from which it is obvious that a physician not entitled to membership under either of the last three heads *must* be a delegate from some local society to become a member of the Missouri State Medical Association.

To increase the attendance and membership of the State Association it is urgently suggested that physicians living in counties or districts where there is no medical organization proceed at once to organize local medical societies, in harmony with the Constitution and By-Laws of State Association and Code of Ethics of the American Medical Association. By this means the usefulness and good influence of the State Association can be extended and its membership greatly increased.

It is earnestly desired that every portion of the state shall be represented at the next meeting of the Missouri State Medical Association, at Sedalia.

In view of the tone and numbers of the medical profession of the State, there is every reason why the Missouri State Medical Association should occupy front rank among medical organizations. To this end the co-operation of every regular physician throughout the State is solicited.

Copies of the Constitution and By-Laws of the Missouri State Medical Association may be had free of charge by addressing the recording secretary, Dr. Frank R. Fry, 3133 Pine St., St. Louis, Mo.

C. F. WAINWRIGHT, Cor. Secretary.

C. LESTER HALL, Pres. Mo. State Medical Association.

ANOTHER RENEWAL.

GALESBURG, ILL., January 22, 1896.

TRI-STATE MEDICAL JOURNAL, ST. LOUIS, MO.

GENTLEMEN:—I enclose you herewith New York draft for $1.00, to pay my subscription to JOURNAL for 1896.

Yours Truly, L. R. RYAN.

ANOTHER RENEWAL.

ABBOTT, IA., January 23, 1896.

THE TRI-STATE MEDICAL JOURNAL, ST. LOUIS, MO.

GENTLEMEN:—Find enclosed United States Express money order for one dollar, payment for JOURNAL for 1896.

Yours Truly, E. J. REYNDERS,

Abbott, Hardin County, Ia.

IS PLEASED.

HOLDREGE, NEB., December 5, 1895.

BUSINESS MANAGER TRI-STATE MEDICAL JOURNAL, ST. LOUIS, MO.

DEAR SIR:—Enclosed please find one dollar ($1.00), to apply on subscription to the JOURNAL for the present year. The monthly visit of the JOURNAL is looked forward to with a great deal of pleasure.

Please give my regards to Dr. J. M. Ball, who will probably remember me as one of his students at Keokuk, Ia.

Respectfully Yours, P. A. SUNDBURG, M. D.

DOCTOR KLEMM RENEWS.

ST. LOUIS, MO., Dec. 28, 1895.

DR. J. M. BALL:—Enclosed please find one dollar for the renewal of my subscription for the TRI-STATE MEDICAL JOURNAL for 1896.

Respectfully,

H. KLEMM.

1825 Wash Str., City.

ANOTHER DOLLAR.

CHARITON, IOWA, Dec. 30, 1895.

Publisher TRI-STATE JOURNAL, St. Louis, Mo.

Enclosed please find express order for one dollar to pay subscription.

Yours truly,

W. A. TODD.

WE WILL PLEASE YOU HEREAFTER.

TRAER, IOWA, Jan. 1st, 1896.

TRI-STATE MEDICAL JOURNAL, St. Louis, Mo.

GENTLEMEN:—Enclosed please find one dollar to renew my subscription. Your Journal suits me in every way but one, namely: "Why don't you put the index to Vol. II. in No. 12 of that Vol. and not in No. I. of Vol. III. as you have been doing. I like to get my TRI-STATE bound every year and if I do so now I will have the index to volume II. in volume III.

Very truly yours,

JAMES A. PINKERTON.

THE STATE BOARD OF HEALTH AND FOREIGN DIPLOMAS.

EDITOR TRI-STATE MEDICAL JOURNAL:

The work accomplished by our State Board of Health, no doubt, is appreciated by the profession at large. However, there is one point that needs a little attention and consideration. It is the acceptance of any foreign diploma without question by the Board of Health. A foreigner arrives and offers such a parchment; it is looked upon with wonder, it is Latin with Heidelberg, Würtzburg or any other burg in large print; this is all right, it is received with great reverence and registered without any questions.

Oftentimes these diplomas are not earned by the bearer. That paper may not be a proof as to the qualification to practice medicine or surgery, it may be only a bought document of Doctor of Philosophy and not Doctor of Medicine, or it may be a Diploma as Doctor of Medicine from some German

University; but such can be obtained as easy in Germany as from some of our Colleges; however, the German States do not recognize them; it does not qualify to practice medicine. To obtain that privilege one has to pass a satisfactory examination before the State Board, and give proof of his qualification; and here comes in the rub! You or I, or any one can obtain the license to practice in Germany, provided, we can pass the State Examination; they will not ask any question as to where or in what school you obtained your knowledge; but the State, as the guardian, requires that you must have the proper and required education, whether native or foreign.

Wonder how many German or foreign physicians are here who have passed that German or any other foreign State examination? The majority did obtain some kind of University Degree, but they carefully avoid the State examination, come here and register anyway.

The German Empire does not recognize any of our Medical Schools nor certificates of examination of any of our State Boards; they require direct proof. Would it not be fair and justice that our State Boards would ask of a graduate of a foreign school an additional proof of his qualification? If Germany or any other country does not recognize our colleges or State Boards, why shall we recognize them?

You may talk about all your higher medical education and what not, make it ever as high, as long as you bow to these foreign documents without any question whatsoever, you thereby admit that they are superior and you will not obtain recognizance, no matter how much more knowledge and practical experience you may have and how little they may possess. If one is only the happy owner of a German Latin University degree or sheepskin, he is the fellow—rub his back.

It is high time for the American profession to act and not talk.

In addition I will say that it seems to me that every State has the right to regulate its own affairs if not interfering with the Constitution of the United States. So it has the right to regulate the practice of Medicine, Surgery, Midwifery, etc., etc.

The State should prescribe a certain standard or grade of education, require the proof by examination before an independent board before a license is granted. No College Diploma should be recognized, no matter where it comes from, nor should any of the active teachers (Professors) serve on such a board, nor should such a legally constituted board inquire, when or where or how the candidate obtained his knowledge; their business should simply be to inquire into the proper qualification of the applicant by examination, and whether he has complied with the prescribed conditions of the State, and act upon that fact.

It might be well in addition to the above individual State Boards to create a Federal or U. S. Supreme Board; it should be voluntary for any one to become a candidate. If he passes their required test, it should be supreme and final, and entitle the holder to practice anywhere in the United States of America and be eligible to enter the Army, Navy or Marine Hospital Service, and in time of war it would be an advantage to the government to have its Medical Officers ready to serve the country without delay.

Foreign countries may recognize such degrees if they are up to the times, and the bowing would be equal if not on the other side of the ocean.

EDWARD BORCK.

4112 N. Grand Ave., St. Louis, Mo.

MEDICAL SOCIETY MEETINGS FOR 1896.

LOCAL SOCIETIES.

I. St. Louis Academy of Medical and Surgical Sciences, meets every Friday evening.

II. St. Louis Medical Society, meets every Saturday night, in Public Library Building, Ninth and Locust Streets, at 8 o'clock.

STATE AND NATIONAL MEETINGS.

April 7. Medical Association, District of Columbia, at Washington, D. C.

April 7. Florida Medical Association, at Sanford.

April 7, 8 and 9. Tri-State Medical Society of Iowa, Illinois and Missouri, at Chicago.

April 14. Tennessee State Medical Society, at Chattanooga.

April 15. Iowa State Medical Society, at Des Moines.

April 15. Medical Association of Georgia, at Augusta.

April 21. Medical Society of California, at Los Angeles.

April 21. Medical Association of Montana, at Bozeman.

April 21–24. Medical Association of Alabama, at Montgomery.

April 22. South Carolina Medical Association, at Spartanburgh.

April 28. Texas State Medical Association, at Fort Worth.

April 28. Medical and Chirurgical Faculty of Maryland, at Baltimore.

April 29. Arkansas State Medical Society, at Fort Smith.

April 30–May 2. Association of American Physicians, at Washington, D. C.

May 2–4. American Academy of Medicine, at Atlanta, Ga.

May 5. Louisiana State Medical Society, at New Orleans.

May 5–8. American Medical Association, at Atlanta, Ga.

May 12. Medical Society of North Carolina, at Winston.

May 14–15. Southern Illinois Medical Association, at East St. Louis.

May 18. American Orthopedic Association, at Buffalo, N. Y.

May 19–21. Illinois State Medical Society, at Ottawa.

May 19–21. Missouri State Medical Association, at Sedalia.

May 20. State Medical Association of Pennsylvania, at Harrisburg.

May 26. American Gynecological Society, at New York City.

May 27–28. Connecticut Medical Society, at New Haven.

May 27–29. Ohio State Medical Society, at Columbus.

May —. American Laryngological Association, at Pittsburg.

May —. American Paedriatic Society, at Montreal, Canada.

May —. Washington State Medical Society, at Tacoma.

May —. Kansas Medical Society, at Topeka.

June 1–2. New Hampshire State Medical Society, at Concord.

June 3. Maine Medical Association, at Portland.

June 4. Rhode Island Medical Society, at Providence.

June 4–5. Ontario Medical Association, Windsor.

June 4–5. Michigan State Medical Society, at Mt. Clemens.

June 5–6. Indiana State Medical Society, at Fort Wayne.

June 9–10. Massachusetts Medical Society, at Boston.
June 16–18. Colorado State Medical Society, at Denver.
June 17. Minnesota State Medical Society, at Minneapolis.
June 20. American Association of Physicians and Surgeons at Niagara Falls.
June 23. Medical Society of New Jersey, at Asbury Park.
June 23. Medical Society of Delaware, at Newark.
June —. American Association of Genito-Urinary Surgeons, at Atlantic City.
June —. Association of Military Surgeons of the United States, at Philadelphia.
June —. Nebraska State Medical Society, at Fremont.
June —. Oregon State Medical Society, at Portland.
June —. Wisconsin State Medical Society, at Superior.
June —. Kentucky State Medical Society, at Lebanon.
July 15. American Ophthalmological Society, New London.
July —. Medical Society of West Virginia, at Wheeling.
August 12. New Mexico Medical Society, at Socorro.
September 8. American Dermatological Society, at The Springs of Virginia.
September 15. American Association of Obstetricians and Gynecologists, at Richmond, Va.
September 17. Medical Society of the Missouri Valley, at Council Bluffs, Ia.
September —. Medical Society of Virginia, at Danville.
September —. Idaho State Medical Society, at Boise City.
September —. American Electro-Therapeutic Association, at Boston.
October 1–2. Utah State Medical Society, at Salt Lake City.
October 10. Army and Navy Medical Association, at Chicago.
Secretaries of Medical Societies will confer a favor by informing us of dates of meetings.

DON'T WORRY.

Several medical editors are greatly worried over the policy of the TRI-STATE MEDICAL JOURNAL. We hope these gentlemen will saw wood on their own wood piles and not worry themselves into premature senility. The TRI-STATE is owned, edited and managed by doctors and we feel that we have the right to conduct this publication along such lines as we may mark out for it. Strange, is it not, that our subscribers and advertising patrons should be too modest to file objections while the editors of rival publications worry about us?

We Want Physicians to call on Physicians with new specialty. Permanent position to good hustlers. Salary or commission. Enclose stamp.
PROGRESSIVE CHEMICAL CO.,
ST. LOUIS.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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Vol. III. SAINT LOUIS, MARCH, 1896. No. 3.

ORIGINAL ARTICLES.

CASE OF UMBILICAL SINUS CONNECTING WITH THE PERITONEAL CAVITY, AS WELL AS WITH THE INTESTINE, IN BOTH OF WHICH LIVING INTESTINAL WORMS WERE FOUND.

By Roswell Park, A.M., M.D., of Buffalo, N. Y.

Professor of Surgery, University of Buffalo.

In April, 1893, there was brought to the Buffalo General Hospital a little Italian boy of 7, whose parents spoke very little English, were very ignorant, and from whom it was almost impossible to get any history. The child was cachectic and emaciated in an extreme degree. He presented at the umbilicus a tumor the size of a pullet's egg, which seemed to involve the whole thickness of the abdominal wall and to have some deep attachment or connection. At the side of the navel itself there was a sinus from which there occasionally discharged a semi-fluid material, having very much the characteristics of meconium, without odor. A probe passed 12 cm. downward through this in the direction of the anus without any resistance. In each groin there was a large cluster of enlarged lymph nodes, which were soft and seemed like ordinary tubercular lesions His general condition was bad. His parents assured me that the discharge

from the umbilicus had never occurred until within the past year. After preparing him as much as possible for the operation, it was made April 15, 1893, in clinic, under ether.

The first steps consisted in the excision of the umbilical tumor, which was very hard and firm and in fact seemed more like cicatricial tissue than like anything else. After dissecting it out by elliptical incision, I found that I had unroofed a sac or cavity, which was lined with a membrane exactly resembling that of the large intestine and into which in four places emptied the intestine itself. In other words, from so much of the cavity as I explored I could find four similar openings of communication into the intestines proper, from which intestinal matter could be made to exude on pressure. From two of these openings I withdrew two long, live, round worms, each about 20 cm. long, and each lying partly in the intestine and partly in this cavity. So far as I could explore the cavity it seemed to extend downward deeply into the pelvis, as well as off to the side. Not recognizing any clear indication for such further operation which the little patient could stand, I closed the abdominal wound with silkworm-gut, save a small opening for drainage which was made with iodoform gauze. The patient nearly collapsed during the operation, which was therefore hurried, but reacted well. He lived a few days and died apparently of exhaustion, his stomach tolerating no food, and his rectum doing little better. A post mortem examination was obtained. The wound was found nearly completely healed; the *sac* above alluded to was found to be the *general peritoneal cavity*, the peritoneum being so altered in the neighborhood of the opening and down into the pelvis as to have entirely lost all its original characteristics. Even after death a portion of it would have been easily mistaken for a portion of the intestinal mucous membrane. It was greatly thickened, and the retro-peritoneal lymph nodes, as well as the mesenteric nodes, were found very much enlarged.

The openings into the intestine found at the operation were traced to the descending colon in which two more worms were found. From the general peritoneal cavity, entirely outside of the intestine, were removed several more worms, none of which was less than 10 cm. in length. The bladder was intact, and the intestines almost entirely empty, their mucosa showing a condition of chronic catarrhal inflammation. In the upper part of the abdominal cavity the peritoneum was found studded with miliary and larger tubercles. The post mortem notes were furnished me by Dr. Woodruff, who was then house surgeon.

The explanation for the above noted condition is not easy or simple. That living round worms are not unknown in the peritoneal cavity, where they live without great disturbance of general health, has been long recognized, and he who would pursue this topic would do well to read an article by Tillmanns in the *Archiv für klinische Chirurgie*. Nevertheless, the

condition is quite rare in the human being. Upon the contrary, in horses, for instance, they are frequently so discovered, and the condition is one well known to veterinarians. The parasites seen in the horse's peritoneum are, for the most part, much smaller and more minute, and seem to perforate the intestinal wall without producing such a sinus as to lead to fatal hemorrhage. In the human being these worms, for the most part, escape from the bowel through tuberculous ulcerations, which by adhesion or by exudate seem to protect the general peritoneal cavity against putrid or septic infection. The explanation for the case above reported is not at hand. The condition was too complicated, and the necessities of the autopsy did not permit of such careful investigation as I would have been glad to make. I thought, however, that the umbilical sinus was really of congenital origin, originally a persistent omphalo-mesenteric duct. Whether further congenital abnormalities were present in the abdomen, I cannot say. It would be possible to imagine such a complicated condition as above described resulting from local tubercular disease with fusion, ulceration, new cavity formation, etc. Nevertheless, without attempting a minute explanation, it seems to me worth while to put the above case on record.

NON-SPECIFIC SYMPTOMATIC ALOPECIA.

BY A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

ALOPECIA, calvities or baldness is a condition which is much more prevalent than is generally supposed. It is embraced under the general class of atrophic diseases of the skin and may be either idiopathic or symptomatic, local or general. The idiopathic form is that which is most ordinarily encountered as one of the accompaniments of senile changes in the integument. A more or less sclerosed condition of the corium and overlying layers takes place, and this results in a shrinkage pressure upon the papillæ of the hair-bulbs. This action naturally reduces the calibre of the papillary vascular loops and brings about their final disappearance by absorption. As this is going on the hairs gradually fall out and the result is a glabrous area of integument entirely devoid of any hair. The progress of this variety is almost imperceptible and unnoticed at first. It, however, continues until a comparatively large portion of cranium is denuded of hair. Upon examination of the scalp it will be found that the openings of the hair follicles have completely disappeared, and when such is the case it may be safely laid down as a rule that it is an impossibility for hair to appear in those places which are bald. In the symptomatic forms of alopecia, on the other hand, we have a condition which, whilst it is described

as a disease, is, in reality, merely a symptom of some deep, underlying cause which has, amongst other manifestations, that of falling out of the hair to a greater or less degree and, as a general rule, not of permanent nature.

In a consideration of alopecia it would certainly be an omission to neglect mentioning that form which is symptomatic of syphilis, as well as that encountered in tinea capitis. I do not intend dwelling upon these, as they are essentially of specific nature, as well as all the other forms due to micro-organisms or parasites. It may perhaps not be superfluous to mention that in these forms the hairs become dry, brittle, harsh, and lack lustre. They are either easily broken off or fall out in small, circumscribed patches, a modus which differs radically from the forms which will be taken into consideration later on. Furthermore, it is not unusual, in some of the specific varieties, for a total destruction of the hair papillæ to take place and lead thus to a permanent baldness. Whereas, in symptomatic alopecia a spontaneous return of the hair takes place in the majority of cases very often with an increased abundance of growth.

In non-specific alopecia we have three principal methods in which the hair falls out, and they are pretty nearly characteristic of the diseases which cause them. But, before taking up this part of the subject, it may be as well to consider the various modes of distribution which are most commonly met with in the cases which present themselves. There may be a symmetrical loss of hair, like portions of the surface being affected and with a faithfulness to distribution which is as singular as it is interesting. On the other hand the process may be unilateral and this distribution, in some cases, ceases abruptly at the median line in quite a sharply-defined manner. Again, in some cases there is a marked assymmetry and an irregularity which differs with each case observed, so that no general description would be found applicable to all cases. In some of the cases observed a more or less serpiginous form will be observed, whereas in others a linear conformation is observable. In the majority, however, the bald spots consist of irregularly-shaped areas of greater or less extent.

A point of some interest is in regard to the varieties of hairs which are implicated as well as the amount of pilous surface which is involved. It will be remembered that there are three principal varieties of hair: the long and fine such as we find on the scalp, the short and coarse like the eyelashes and the short and fine like the lanugo hairs. In some forms of non-specific symptomatic alopecia it is the hair of the head only which suffers, in others the scalp not only loses its hair, but the eyebrows and eyelashes share in this process. In men it is not unusual to find the beard and moustache involved, and occasionally in both sexes the axillæ and pudenda. Finally, cases are encountered in which the lanugo hairs participate in the affection. Any one of these forms alone or combined may

occur and each one is always possessed of points of interest, both from an etiological and therapeutical point of view. A factor which increases this interest is that which concerns the manner in which the hair falls out. Thus we find that there may be a sudden and complete loss of hair, a veri-

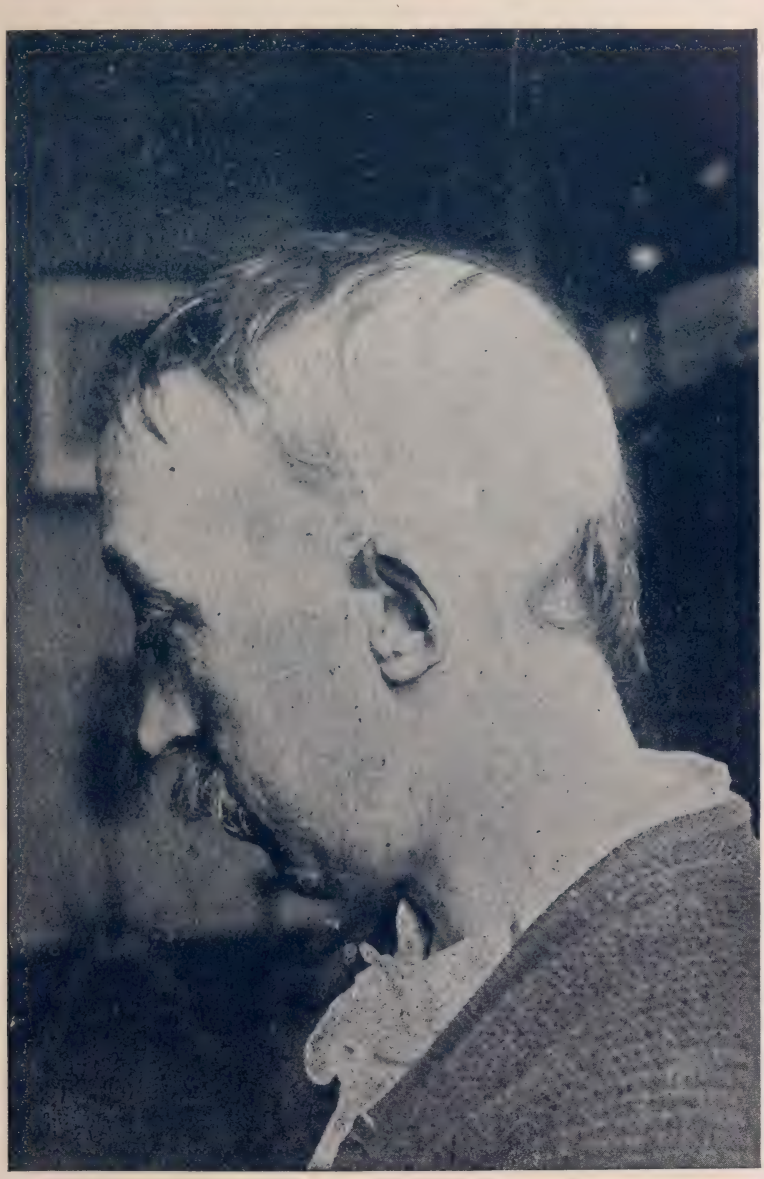

FIG. 1. Symptomatic Alopecia following Erysipelas.

table defluvium, such as may be observed after an attack of typhoid fever. In other cases the falling out of the hair is in bunches, and patients will speak of the trouble by saying that their hair "fell out in handfulls." The

denuded areas are not necessarily contiguous, but may have intervening portions which are supplied with hairs. In the third manner of evolution of symptomatic alopecia there is a gradual "thinning" of the hair, which is progressive and steady and so insidious, that the subject is unaware of the fact until some day he suddenly awakens to the fact that he has lost a considerable amount, and finds out that it is perhaps impossible to cause a new growth. On the other hand, when the hair falls out suddenly and in large quantity, we have a condition which has a tendency to recover spontaneously. These points should always be borne in mind in making a prognosis, as the possibility of a recovery is always an important matter to a patient, more especially when he is solicitous concerning the cosmetic appearance presented.

There are two forms of non-specific symptomatic alopecia which may be said to be permanent and incurable—that due to senile changes in the skin and universal alopecia. In the other forms there is always hope and a good share of success may be expected under effective treatment. This latter should always be of a more or less stimulating character, and it must not be forgotten that remedies which would prove irritating to the ordinary integument are not more than merely stimulating to the scalp or hairy parts. This is no doubt due to the fact that such parts are so amply provided with rather large sebaceous glands and a rather thick epidermis. However it may not be uninteresting to give short histories of one or two cases which are rather typical of the conditions which they represent.

Case 1.—X., single, aged 34, whose occupation was that of a photographer, had an attack of facial erysipelas. This trouble was of an ordinarily severe character, but he rallied nicely and was soon convalescent. All symptoms of an inflammatory character had disappeared and he was gaining strength rapidly. The case was practically cured when the patient was alarmed when a marked defluvium took place suddenly. This falling out occurred in masses from time to time until his scalp presented the appearance shown in Figure 1. As will be seen the occiput was completely denuded with the exception of a wisp of hair at a point near the juncture of the scalp and neck. The temporal regions were also visited with a marked loss, that on the left side having but a few scattered hairs and that on the right perhaps a few more. Normally the hair was of a brown color and apparently strong. It will be noted that the eyebrows, eyelashes and beard did not participate in the trouble. After the alopecia had fully declared itself, as shown in Figure 1, a condition was observed which is not unusual in such cases. A growth of new hairs began and it was exceedingly slow, to such a degree that the patient was in despair from the fear that he would never have a full growth of hair. This was, however, groundless, as eventually it all returned, more abundant and better in appearance than it had ever been.

Case 2.—This patient was at the St. Louis City Hospital and gave a history of having suffered at one time from a marked case of acute rheumatism. This was followed by valvular disease of the heart. This illness was the only possible adequate cause which could be assigned for the alopecia which occurred. The falling out of the hair was a very gradual process, and the patient could not give a clear history of its progress. He stated,

FIG. 2. Universal Alopecia.

however, that it had gone on for years and had apparently invaded every portion of his body simultaneously. Upon a careful examination it was found that he was entirely bereft of hair, and he presented the appearance shown in Figure 2. The lanugo hairs had all disappeared and, so far as any hirsute appendages of the skin were concerned, he presented as thor-

oughly a naked individual as could well be imagined. This should be qualified, for he had one single hair still remaining which arose from the right side, a little above the line of the natural growth of the hair on the scalp. This is not shown in the engraving, but may be distinctly made out in the photograph. No hopes of restoration of the hair could be held out.

There have been cases similar to this one reported from time to time and a history of some acute general condition has been elicited or observed. But, beyond this, nothing more definite can be offered. These conditions have been so different and various that the only safe conclusion which can be drawn is that the cause or origin is of a very deep nature and that the changes produced are of so marked an organic character as to have produced complete destruction. It is for this reason that it may be safely asserted that the loss is irreparable and irremediable, local and internal measures of all natures having always failed in producing any favorable results.

In the other forms of symptomatic alopecia, as has already been stated, spontaneous recovery takes place, but it is so slow, at times, that treatment will be found of benefit and rather advantageous. Not only should this treatment be local, but general measures are to be adopted which tend to place the patient in the best possible condition, and especial attention should be paid to the circulatory and nervous systems. This will be found of marked benefit. The local treatment is essentially stimulating in nature and should never be made irritating except in extreme cases. On the other hand, the stimulation should be of a degree sufficient to make an impression imparting a glowing sensation of warmth to the part to which it is applied. It should certainly not be limited to such mild agents as alcohol or bay rum, but should have a strength equal to that of the trichogenous solutions recommended by dermatologists. It should not be oil nor in ointment form, as such preparations are neither as pleasant or as cleanly as many lotions whose efficiency is just as great.

The following may be given as examples of such preparations, and should be applied thoroughly, taking care that the liquid is not permitted to run over the face or in the eyes:

℞ Resorcini resublimat., ℥ j
Spts. vini rectificat., ℥ iv
M.
Sig. Apply morning and night.

℞ Beta naphthol, ℥ ss
Spts. myrciæ, ℥ iv
M.
Sig. Apply twice a day.

℞ Resorcini, ℥ i
Beta naphthol, ℥ ss
Tinct. cinchonæ co., ℥ iij
Spts. myrciæ, ℥ vi
M.
Sig. Apply twice a day.

℞ Tinct. cantharidis, ... ℥ i
Ol. rosmarini, ... m x
Spts. vini rectificat., ... ℥ iv
M.
Sig. Apply to scalp twice daily.

℞ Ol. gaultheriæ,
Spts. etheris sulphurici, ... aa ℥ i
M.
Sig. Apply twice daily, carefully.

These are a few which are efficient. The proportions given are, of course, not inflexible, and should be varied according to the requirements of the case, and especially the sensitiveness of the skin to which applied. The last one is the strongest, and it may be necessary to reduce the quantity of oil of gaultheria. To get rid of the strong odor of wintergreen, it is only necessary to spray a little perfume after having made the application. A comparatively rapid return of the hair will follow the regular application of any one of the above lotions.

STRANGULATED INGUINAL HERNIA OF A CYSTIC APPENDIX VERMIFORMIS.*

By Weller Van Hook, A.B., M.D., of Chicago.

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LEOPOLD M., German by birth, 43 years old; weight, 170 pounds; height, 5 feet 9 inches; newspaper dealer; had had good health (except an attack of typhoid fever at 14 years of age) up to four years ago. At that time he had a feeling of soreness at the umbilical region, and a sudden movement, a concussion or pressure upon the abdomen, would cause intense pain. As a result of over-exertion in lifting, a right oblique inguinal scrotal hernia was contracted a year and a half ago. The abdominal tenderness gradually increased up to the time I first saw him. He had never suffered from indigestion or griping pains. He has always been constipated, the bowels sometimes not moving for a week. He never noticed a tumefaction in the abdomen, but on pressure over the iliac and hypogastric regions he felt a sensation of tenderness. This soreness was not greater upon one side than upon the other. The hernia always disappeared without taxis on lying down, until September 16, 1895, when he noticed that the hernial contents remained in the sac. His own efforts to reduce it being unsuccessful, Dr. J. W. Dal was called after thirty-six hours. Dr. Dal found a tense swelling in the inguinal canal which he could not reduce without anæsthesia. The patient was vomiting fluids from the upper intestinal tract. No gas had passed by the rectum, but this fact may have been due to lack of sufficient peristaltic activity. Under chloroform Dr. Dal

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again attempted taxis, and the tumor seemed to disappear. When the patient recovered from the anæsthetic, however, pain was greater than before, and took on a different character, radiating over the lower abdomen toward the umbilicus. The doctor's observation at the evening visit convinced him that the patient's condition was not satisfactory, and a consultation was requested. On examining the patient, I found him suffering from some abdominal pain, with pulse of 90, and a slight elevation of temperature. There was tenderness over the lower right side of the abdomen. In this region the muscles were abnormally rigid and palpation was difficult. The abdomen was but slightly distended. In the inguinal canal and extending into the scrotum was a brawny mass, not very tense. It seemed most reasonable to suppose, in the absence of clearly marked diagnostic signs, that reduction had been imperfectly accomplished, and that a thin mass of omentum was left in the sac, together with a knuckle of intestine.

After the usual preparations, the sac was exposed by a sufficient incision and carefully opened. To my surprise, no omentum or intestine was present. The brawny sensation was due to acute inflammation of an unusually thick sac. The peritoneal lining of the sac was injected and rough and the walls œdematous. In the sac, lying in scattered masses here and there, was a quantity of translucent amber-colored mucus having almost exactly the appearance of calves'-foot jelly broken up into pieces of one to ten millimetres, thickness. Its consistence, however, was somewhat tenacious. Having seen on another occasion the same material in a cyst of the vermiform appendix, I recognized at once that such a cyst had been strangulated in the inguinal canal and ruptured in reduction.

The incision was prolonged sufficiently to open the abdominal cavity, where an additional quantity of mucus was found scattered over the intestines and the parietal peritoneum of the internal iliac fossa sufficient to make the whole amount equal to at least an ounce. The caput coli was near at hand, and on drawing it into the wound the cystic appendix was drawn into the wound. At the distal extremity of the appendix was found a rent as large as a lead pencil, through which mucus was protruding. The walls of the appendix were dilated at the middle, but near the cæcum was a constriction. The caput coli and neighboring small intestines were covered with thick tenacious masses of false membrane, quantities of which were stripped off. There was but a small amount of fluid present. The peritoneum, where not covered with false membrane, was deeply injected and roughened. That these changes involved an extensive area of the serous membrane was proved by cautiously drawing out the neighboring coils of bowel.

The sac of the hernia was first dissected free and cut off at the cœliotomy wound, a number of iodoform-gauze capillary drains were applied carefully in different directions in the abdomen, and the caput coli drawn

well up to the wound. The appendix was then ligated close to its base and amputated with scissors. The suture used to ligate the appendix was left long enough to be passed through the eye of a needle, and was then carried through the muscular walls of the abdomen. In this way the cæcum, whose walls were more violently inflamed than those of other parts of the intestines, was anchored close to the abdominal wound. The cœliotomy opening was, for the most part, left open to facilitate drainage, although a few silkworm-gut stitches were inserted, to be tightened as secondary sutures. The patient bore the operation well, and, despite the grave local affection, made uninterrupted progress toward recovery. During the first few days an enormous serous discharge escaped from the opening, and the temperature went up to 101.2°. The pain disappeared, however, and, the bowels responding to laxatives, the general condition of the patient rapidly improved, the wound healed by granulation, and the man now, three months after the operation, attends to his usual business, wearing a truss to protect the abdominal walls.

The portion of the appendix removed is, in its recent condition, six centimetres in length and two centimetres and a half in diameter. Its outer (peritoneal) surface is of a bright red color except at points not covered by a grayish-red false membrane. Here and there are small masses of an amber-colored, thick, tenacious substance which finds its way out of the appendix, on pressing its walls, through the cut end and through an irregular opening at the distal extremity about eight millimetres in diameter. The shape of the appendix is irregularly cylindrical; but about two centimetres from the distal extremity the tube is bent upon itself from the longitudinal axis in the direction of the mesenteriolum at an angle of about 40°. The walls of the appendix vary in thickness from about four millimetres at the point of amputation to nine or ten millimetres near the distal extremity. There are also variations in the thickness of the walls at the same level, giving rise to slight pouchings of the lining membrane at several points. But these pockets do not at any point reach the dignity of diverticula. The interior of the appendix is filled with the same gelatinous, amber-colored material already noted as having been seen adherent to the peritoneal surface of the process.

Microscopically, the fibrous coats of the appendix are greatly thickened. The muscular layers are not thicker than normal. Out of thirty sections examined, only one shows a small, ill-developed layer of epithelial cells representing the atrophic mucous membrane, the place of which elsewhere is filled entirely by a layer of connective tissue.

This case is unique in the occurrence of rupture of the cystic appendix in the sac of a hernia; it is the third case of which I have knowledge, after a study of the accessible literature, where a cystic dilatation of the appendix occurred in a hernia, and the ninety-ninth case of hernia of the ap-

pendix. It is also interesting from the fact that inflammation of a hernial sac had its origin in a lesion of the appendix.

Rupture of the cystic appendix by taxis in the effort to reduce an inguinal hernia is an accident which, as has been already remarked, has not before been recorded. And even if one were aware of such a possibility no practical advantage of the knowledge could be taken, both on account of the rarity of the circumstance and the want of diagnostic signs to lead us to a proper knowledge of the conditions before operating. The practical lesson to be gained from an acquaintance with this case is that the contents of a hernia are practically unknowable before the sac is opened, and that taxis is dangerous in a certain proportion of cases. But little persuasion is needed to convince surgeons to-day that the open method is, in the great majority of instances, the simplest, most radical and satisfactory treatment for strangulated and incarcerated hernias.

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THE NEW SYSTEM OF PHOTOGRAPHY.*

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THE nineteenth century will go down in history as the one most prolific in marvelous discoveries and resultant practical commercial and social advancement. This epoch has given birth to the practical introduction, amongst other things, of the power printing press, the steam locomotive, the steamship, illuminating gas, solar photography, electro-metallurgy, electro-plating and typing, chromo-lithography, photo-engraving, prophylactic and anti-toxic medication, general and local anæsthesia, machine sewing, machine mowing, harvesting and reaping, the power loom, germ pathology, the science of a-sepsis and anti-sepsis, abdominal and brain surgery, straw-paper, vulcanized-rubber, the turning of irregular forms, artificially formed ice, the gas engine, the heat engine, the screw-propeller, aniline and aniline dyes and the medicinal by-products of coal-tar—anti-febrine, anti-pyrin, phenacetin, etc., the electric telegraph, the electric telephone, the electric light, the electric transmission of power, the electric railway, the storage battery, the phonograph, type-writing, the linotype process, the telautograph, the photo-phone, the radiometer, Crooke's tubes, and now lastly, the Roentgen system of photography. For the realization of these marvelous developments we are indebted more than anything else to those pure philosophers and scientists who have lead us into the correct methods of reasoning, and placed at our disposal those pieces of apparatus and conceptions which have done so much toward establishing our understanding of the nature of matter and energy.

These immense results have many of them been gained by the application to the study of nature of a method which was so admirably described

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by Lord Bacon in his "Novum Organum," and which is now generally called the experimental method. What we observe in nature is an orderly succession of phenomena. The ancients, as well as ourselves, speculated about these phenomena, but they contented themseves with speculations, animating nature with the products of their wild fancies. Their great master was Aristotle, but his method of logic applied to the external world was, of necessity, an utter failure. The disciples of Aristotle failed, because they could see in nature only a reflection of their own idle fancies. The followers of Bacon have so gloriously succeeded, because they approached nature as humble students, and, having first learned how to question her, have been content to be taught without seeking to teach. The ancient logic never relieved a moment of pain, or added one mite to our commercial and social aggrandizement. The Baconian system consists in (1) careful observation of the conditions under which a given phenomenon occurs, and (2) the varying of these conditions by experiments, and observations of the effects thus produced. These are the methods which have been applied by modern scientists in the development of our existing conceptions of the nature of matter and energy, which have been instrumental in the discovery and development of most of our recent improvement, including the Roentgen system of photography; and of those pieces of purely scientific apparatus which have also aided in this development, none deserves a higher rank than Crooke's Radiometer and Tubes. No one who is not familiar with the history of physical science can appreciate how very modern are the grand conceptions which have added so much to the loftiness of scientific studies. These conceptions open up a vision into a microcosmos beneath us as extensive and as grand as that which the Copernican theory revealed in the macrocosmos above us. The conception to which I refer will be at once suggested to every scientific student by the word *molecule* (the smallest particle of a substance in which its qualities inhere).

According to our modern ideas, the peculiar qualities of every substance reside or inhere in its molecules. A lump of sugar has its peculiar qualities because it is an aggregate of molecules which have those qualities, and a lump of salt differs from a lump of sugar, simply because the molecules of salt differ from those of sugar, and so with every other substance. There are as many kinds of molecules in nature as there are different substances, but all the molecules of the same substance are absolutely alike in every respect.

Now, just at this point, comes in a new conception, which gives far greater grandeur to our modern theory: we conceive that those smallest particles in which the qualities of a substance inhere are definite bodies, or systems of bodies, moving in space, and that a lump of sugar is a universe of moving worlds. If on a clear night one directs a telescope to one of the many star-clusters of our northern heavens, one will have presented to

the eye as good a diagram as we can at present draw of what we suppose would, under certain circumstances, be seen in a lump of sugar, if we could look into the molecular universe with the same facility with which the telescope penetrates the depths of space. This conception of modern science marks a transitional period, and although very familiar to scientific scholars, it has not yet been grasped by the popular mind; but wild as it may appear, the idea is the growth of legitimate scientific investigation. What is true for a lump of sugar, holds good for every other substance, or every particle of matter—a lump of marble, a piece of iron, or a block of wood; and that the lump of sugar and of every other substance or form of matter is an aggregate of moving molecules is a legitimate inference of molecular mechanics, a science which, although so much newer, is as positive a field of study as astronomy.

Light is not the only avenue to knowledge, and, although our material limitations forbid us to expect that the microscope will ever be able to penetrate the molecular universe, yet it is certain that we have been able by strictly experimental or Baconian methods to weigh molecular masses and measure molecular magnitudes with as much accuracy as those of the fixed stars. Of all forms of matter, the gas has the simplest molecular structure, and, as might be anticipated, our knowledge of molecular magnitudes is as yet confined to materials of this class—and hence I present some molecular magnitudes of hydrogen gas, and although the vast numbers are as inconceivable as are those of astronomy, they will serve to impress us with the reality of the magnitudes they represent. The molecular dimensions of other substances, although varying very greatly in their relative values, are of the same order of magnitude as these:

Dimensions of hydrogen molecules, calculated for temperature of melting ice, and for the mean height of the barometer at the sea level:

Mean velocity, 6,099 feet per second; mean path, 31 ten-millionths of an inch; collisions, 17,750 millions each second.

Diameter, 438,000 side by side, measure $\frac{1}{100}$ of an inch; mass, 14 (millions^3) weigh $\frac{1}{1000}$ of a grain; gas-volume, 311 (millions^3) fill one cubic inch; two million hydrogen molecules, side by side, measure a little over one millimetre.

The molecules of hydrogen are thus constantly moving to and fro with this great velocity, and hence there must be a space between each molecule. Not only are the molecules of all æriform substances moving at similar, although differing rates, and in similar, although differing spaces, but the same is equally true of the molecules of every substance, whatever may be its state of aggregation or density. Now, since all substances are composed of molecules moving freely, with spaces between them, the question arises as to what fill these spaces. In the science of optics, as is well known, the phenomena of light are explained by the assumption that the

energy is transmitted in waves through a medium which fills all space—called the ether, and there is no question, but that this theory of nature, known in science as the undulatory theory of light, is, as a working hypothesis, one of the most comprehensive and searching which the human mind has ever framed. It has both correlated known facts, and pointed the way to remarkable discoveries. Now, according to modern conception, it is this ether which permeates all substances, and invades these intermolecular spaces. That which constitutes the differences in the physical properties, or in the densities of different substances, simply consists in the extent of the mean vibratory paths which the molecules of these different substances cover in vibrating in this ether.

Our conceptions of this subject were given their greatest impetus by the discovery of the Crooke's radiometer and Crooke's tubes. The radiometer consists of a glass bulb enclosing a movable vane. The moving part is a small horizontal wheel, to the ends of whose arms are fastened vertical vanes, usually of mica, blackened on one side. A glass cap forms the hub. The wheel is enclosed in a glass bulb, so that the cap rests on the point of a cambric needle. The wheel is so delicately balanced on this pivot that it turns with the greatest freedom. The interior of the bulb is exhausted by means of the Sprengel pump, until less than $\frac{1}{1000}$ of the original quantity is left, and the opening is then hermetically sealed. If, now, the sun's rays, or even the light of a candle shines on the vanes, the blackened surfaces of the vanes are repelled, and the wheel upon which the vanes are mounted revolves. It presents a striking manifestation of molecular motions, and has greatly extended our knowledge of molecular mechanics. By means of a good Sprengel pump exhaustion to the hundred-millionth of an atmosphere has been attained, and the mean free-path of the molecules would then be about 33 feet. In our atmosphere at a height of 210 miles the single molecules are relatively so few that each molecule, it is estimated, might travel through a uniform atmosphere of that density for 60,000,000 miles without entering into collision.

The all-pervading ether can be set in vibration by the vibration of the molecules of ordinary matter. This local disturbance sets up waves, and by these waves energy may be transferred from one place to another. This constitutes what we term *radiation*.

The forms of energy known as heat and light, are nothing but vibration radiated or transmitted through this ether. Heat-waves and light-waves in ether are not waves of compression and rarefaction, like sound in air. The propagation of an ether wave is effected after a different fashion. The vibrations of the ether are transverse to the line of propagation. The analogy of a transverse vibration running along a cord, or of a wave of up-and-down oscillation running over the surface of water, or over a thin membrane, must be extended to the ether with its three dimensions in space.

The molecules of ordinary matter must be supposed, in virtue of their small size, to vibrate very rapidly. The average diameter of molecules is estimated to be about $\frac{8}{10000000}$ part of a millimeter. A steel tuning fork two inches long may vibrate 480 times a second; if it were $\frac{8}{10000000}$ millimeters long, it would then vibrate 30,000,000,000 times per second; if made not of steel, but of ether, its frequency would be greater in the ratio of the velocity of propagation in steel to that in ether, and would, it is estimated, amount to about 1,740,240,000,000,000 oscillations per second. It is probable that some such number may denote the average frequency of the ether waves. We are not, however, acquainted with any other waves except those whose frequencies lie between the limits of about 107,000,000,000,000, and about 40,000,000,000,000,000 of oscillations per second—a range, to use a musical analogy, of about $8\frac{1}{2}$ octaves; but of these, our eyes are sensitive to scarcely one octave—*i. e.*, to those vibrations which range between about 392,000,000,000,000 per second (extreme red of the spectrum), and about 757,000,000,000,000 per second (extreme violet). These waves all travel through the ether of space at the same rate, namely, 186,680 miles per second.

Ether waves while traversing the ether, present no essential differences, except in respect of their frequencies, and hence also of their wave-lengths; the latter vary in a vacuum from $\frac{1}{10000}$ cm. to about $\frac{1}{1300000}$ cm., and those waves to which our unassisted eyes are sensitive, the waves of light, have wave-lengths varying between $\frac{1}{13042}$ cm. and $\frac{1}{25185}$ cm. When a succession of these ether waves impinge on a mass of ordinary matter, the effect varies according to the nature and the condition of the body which receives their shock; if it be an odinary opaque mass, that mass may be warmed, wave-motion being transformed into heat, and the waves which have impinged upon it are then called a beam of radiant heat; if they fall upon the eye, they may produce a sensation of light, and the wave-system is then called a beam of light; falling upon a sensitized photographic plate, or a living green leaf, it may cause chemical decomposition, and it is then called a beam of actinic rays. Hence we speak of heat rays, of light rays, and of actinic or chemical rays, these names being simply given to one and the same train of waves according to the effects which it is found competent to produce. While they are traversing the ether there is neither heat, light, nor chemical action—merely wave-motion and transference of wave-motion.

Ether waves which differ in their frequency, differ to some extent in their degree of power of producing the motion of heat, the sensation of light, or of effecting chemical decomposition. All ether waves can produce heat, for their energy is converted into heat when, for instance, they fall upon and are absorbed by such a substance as a thick layer of lamp-black, which for the most part arrests and extinguishes them.

The slowest waves known, those having the longest wave-length, whose frequency is less than 392,000,000,000,000 oscillations per second—are too slow—either to affect the eye with the sensation of light, or, in the ordinary case, to impart to molecules an agitation brisk enough to shake them to pieces, and thus to operate chemical decomposition. Such slow waves, whose presence can only be recognized after their impact by the conversion of their energy into heat, are called dark heat-waves. If they fall upon an ordinary photographic plate, they do not produce chemical decomposition. On the other hand, the waves may be so rapid—*i. e.*, short wave lengths, above the 757,000,000,000,000 per second, already referred to, as to produce no visual effect on the eye—*i. e.*, the normal eye is physiologically blind to them, and is unable to feel their impact; but they may nevertheless effect chemical decomposition; their successive impulses may aid the natural free vibrations of the molecules of the chemical composition, which thus become increasingly ample; and just as a resonant tumbler into which its own note is steadily sung vibrates, shivers, and breaks into fragments, so a molecule quivering under the steady, regular, and continuously well-timed blows of the rapid ether waves, may yield and break up into its constituent atoms or groups of atoms. Such rapid waves are called invisible or ultra-violet chemical rays. The power of producing chemical decomposition possessed by the more rapid waves depends upon their frequency more than upon their intensity. The invisible chemical rays, though they can operate chemical decomposition, are yet of very feeble physical intensity, and even those rays which are visible are effective not so much in virtue of their intensity, which is but small, as in virtue of the extraordinary sensitiveness of the eye to light—that is, to the impact of ether waves of a certain range of frequency.

Within the heretofore mentioned limits of visibility—*i. e.*, 392 billions to 757 billions of vibrations—there is an indefinite variety of fractional numbers, each of which represents the frequency of a particular kind of radiation, a particular kind of light.

These different kinds of light, each physically characterized by the number of waves which strike the eye during a second, are recognized by the eye as being distinct, not as the result of any conscious process of counting the number of impulses suffered by the eye during a second, which would be impossible, but rather in consequence of the distinct and peculiar sensation attending the reception in the eye of wave-motion of each particular frequency—a sensation known in each case as that of a particular color. Color is therefore purely a *sensation*—it is not a material existence.

The physical basis and cause of the special sensation of yellow light is the joint simultaneous impact on the eye of two kinds of ether waves, which have the respective frequencies of approximately 508,000,000,000,000, and 510 billions per second. Either of these trains of waves imping-

ing on the eye would produce a sensation of yellow, the slower one giving a yellow very slightly more orange in its tint than the other. Therefore, the term yellow light, which means primarily a certain sensation, and which means secondarily, the physical *cause* of this sensation, *i. e.*, a train of ether waves of a particular frequency.

The slowest waves which can affect the eye produce a sensation of red, those somewhat more rapid, a sensation of scarlet; then in succession we find, as the frequencies increase, that the sensations produced are those of orange-red, reddish-orange, orange, yellow-orange, orange-yellow, yellow, greenish-yellow, yellowish-green, green, bluish-green, greenish-blue, blue, blue-violet, violet. Waves of still greater rapidity than those which produce the sensation of violet are practically invisible to the eye, but these rays are capable of effecting chemical decomposition. That which we recognize as white light is, in the state in which we receive it, a mixture of long and short waves—waves of all periods are either continously present, or, if absent for a time, are absent in such feeble proportions or for such short intervals that they are not appreciably missed by the eye. Such a light is comparable to an utterly discordant chaos of sound of every audible pitch—such a noise would produce no distinct impression of pitch of any kind, and hence white light is uncolored.

We know that every component of an original white light is displayed in the spectrum, each in its distinct place. But the spectrum extends beyond the visible part of it; the more rapid invisible rays being more refrangible than the violet, form an invisible part—an ultra-violet region—which may be detected by the phenomenon known as fluorescence, or by casting the whole spectrum upon a sensitive photographic plate, upon which we will afterwards find a record of a region of the spectrum invisible to the eye.

It has been observed that prisms of glass will to a remarkable degree absorb these rapid ultra-violet rays; and again, if the light analyzed be that of the sun, the ultra-violet part of the spectrum is comparatively very short, on account of absorption by the atmosphere. The ultra-violet part of the spectrum is enormously brighter at high altitudes. A body at a red heat is difficult to photograph, though it continues perfectly visible in the dark.

From the foregoing we see, therefore, that that which is invisible to the eye may nevertheless be extremely visible to a sensitive photographic plate; and that, on the other hand, that which is visible to the eye may be but feebly visible to a photographic plate. Prof. Pickering has made many superb photographs of stars which cannot be seen by the eye through the most powerful telescope.

Now, when ether waves within the range of visibility fall upon what has heretofore been known as a transparent body, they pass through it readily, *i. e.*, they are readily propagated through the ether which lies be-

tween the molecules, just as atmospheric vibrations or disturbances may pass through a forest. When a body is thus pervious to those ether waves which are visible to the eye, it is specially said to be transparent. When pervious to dark heat or slow ether rays invisible to the eye, it is said to be diathermanous; and no special term has ever been used to denote transparency to actinic rays. A body impervious to those ether vibrations visible to the eye has always been said to be opaque, although it has for some time been known that substances opaque to visible ether waves might be, and in many cases were transparent to other ether waves. Some bodies are impervious to all kinds of radiation; others, having a power of selective absorption, are impervious to some kinds only. Hence the term transparent is purely a relative one. Thus radiant heat can pass, while the more rapid light waves cannot pass through a thin piece of black vulcanite, or through a solution of iodine in bisulphide of carbon; while a solution of alum in water is, on the other hand, transparent to light, but is adiathermanous, *i. e.*, impervious to heat rays. Lamp black, again, is very transparent to the slower heat waves. Glass is transparent and diathermanous, but is somewhat opaque to the ultra-violet rapid ether waves. A piece of green glass can only allow a certain number of kinds of light to pass through it; by their joint impact these produce the sensation of green. Sunlight contains other waves than these, but they have in this case been absorbed, the green glass is opaque to them. These waves would together have produced a sensation of purple-colored light. If this purple light had alone fallen upon the green glass, it would not have been transmitted, the glass would have appeared to be opaque. When sunlight is directed first through purple glass and then through green, the eye perceives blackness, the two pieces of glass are together opaque, though each of them is transparent to its own kind of light.

The kind of light *absorbed* by a body may also vary with the molecular constitution of the body.

When a flash of lightning or an electric spark rushes through the air it jars the particles of air, and renders the air incandescent and luminous, and it also originates actinic ether waves, for an electric spark can be photographed as well as seen.

Now, in the transmission of ether waves of different wave-lengths through different transparent bodies, the interaction of the ether and the ordinary matter—an action which cannot be very great, for, if it were, transparence would be impossible—is such as, in different media, unequally to retard ether waves of different wave-lengths. And here is, in my opinion, the fundamental secret to the explanation of the possibility of photographing objects surrounded by what have heretofore been called opaque substances. This retarding effect depends somehow upon the nature of the transparent body; and this holds good not only with regard to light in general, but also

with reference to each particular kind of light. Each transparent substance has its own rate of transmission for ether waves of each particular frequency. A denser substance may sometimes transmit ether waves more rapidly than a rarer one does.

It has for some time been known that the ether waves which are known as ultra-violet rays are capable of passing through what are popularly known as opaque substances with different degrees of facility, according to the character of the substance with reference to the character of said waves.

From the foregoing it is therefore manifest that ether waves may pass through all substances by means of the propagation of said waves through the ether which fills all inter-molecular spaces, the degree of retardation offered by such substances to the passage of such waves, or the opacity of such substances, being purely a question of the relationship of the molecular construction of such matter and the rate and character of the vibrations of the molecules of the matter, to the rate of vibration and character of the ether waves. Hence when we produce a train of ether waves which, by their character, are capable of passing through what has heretofore been known as an opaque substance, or a substance which retards or absorbs those ether waves which are visible to the eye, and which train of ether waves is also capable of effecting chemical decomposition on a sensitized photographic plate, then it naturally becomes possible to impress upon such a photographic plate a shadow or silhouette image of any object placed between said substance and the sensitive photographic plate, provided such object is of a character to retard the passage of the train of ether waves; on the same principle that a magic lantern picture is made. This is just what Prof. Roentgen has done. He has succeeded in producing ether waves which, while capable of chemically decomposing a sensitive photographic plate, are readily propagated through some substances which are opaque to visible ether waves; and having succeeded in producing such ether waves, he immediately proceeded to put them into practical use by employing them to photograph objects practically opaque to them and enclosed in substances practically transparent to them, as, for instance, bones enclosed in flesh. Others, before the time of Roentgen's experiments, had discovered and succeeded in producing ether waves which were capable of affecting a sensitive photographic plate, and which were also capable of being propagated through substances which were opaque to visible ether waves, but they were not as efficacious for this service as those discovered and produced by Prof. Roentgen, and they were, therefore, not able to put them to any practical use. It is also not only possible but also highly probable, that others following in the wake of Roentgen will discover other ether waves which may be still more readily propagated through even more opaque substances, and which waves will be capable of effecting the decomposition of

some kind of sensitive plate, not necessarily a plate of the same chemical composition as the present photographic plate. It is purely a question of adjustment of relationship between the molecular character of the substance to be penetrated, the character of the ether waves, and the chemical composition of the sensitive plate.

523 PENDLETON AVENUE, St. Louis.

LAYS ON RAYS.

BY WILLIAM JAMES EVANS.

Turn on the Roentgen ray!
Let darkness have its day;
Crooke's tubes have come to stay
Light shines the other way.

Let wit see through the dense
Old wooden door of sense,
With vision of intense
The field is quite immense.

When we've appendix fright
Can we then use the light
And finding it all right
Not operate that night?

If the electric eye
Can see through wet and dry,
Inside of you and I,
What charms can it descry?

Will it heal the unsound
And bring the sick around,
Make happiness abound
And let those smile who frowned?

We'll pay our doctor's bills
And put him in our wills
If it bacilli kills,
And cures our other ills.

Can we see who are right
With this new Roentgen light,
Will it help mental sight
To put the false to flight?

May it not see behind
Your eye into your mind,
And show what you're inclined
To think no one can find?

It sees straight through a book,
It shames the critic's look;
What you can't find by hook
Cathodograph by Crooke.

We hear a thousand miles,
And see through our profiles,
And now electric trials
Taste, smell, and touch beguiles.

A Successful Session.—The St. Louis College of Physicians and Surgeons is about to close the most successful session in its history. Under the able management of Doctors Briggs and Furney, the school is making rapid progress. Never before has clinical material been so abundant. A new hospital will be built within a short distance of the College, and will be ready for use by September first.

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CHICAGO MEETING OF THE TRI-STATE.

In every respect the coming meeting of the Tri-State Medical Society, to be held in Chicago, April 7th, 8th and 9th, will be a notable gathering. Only the American Medical Association, which meets in Atlanta in May, will have a larger attendance. The program, which Doctors Robert H. Babcock, President, and George W. Cale, Secretary, have prepared is so attractive, and the Chicago doctors have such an unanimous way of extending the hospitalities of their city, that there is no question about the matter of attendance.

Surgical and gynæcological clinics will be held by four of the wheelhorses of the City by the Lake—Doctors Senn, Murphy, Etheridge and Henrotin. The program proper includes papers by many of the best known men in America. There is a notable absence of the blasé and burning, unethical, shouting, barn-stormer and alcoholic element which boasts that it "runs" another medical association which meets the coming fall. The coming meeting will eternally silence those carping critics who have recently made vicious attacks upon the Tri-StateMedical Society, because "you know, it interferes with our society."

The Committee of Arrangements is composed of three of the young and successful physicians of Chicago, Doctors Hugh T. Patrick, W. L. Baum and W. H. Wilder. Each one of these gentlemen has gained an honorable

place in his special line of work. All are noted for their energy, intelligence and hospitality.

The President of the Tri-State Medical Society, Doctor Robert H. Babcock, deserves more than a passing notice. Perhaps no man in the American profession has had the difficulties to meet and has met them so successfully as has Doctor Robert H. Babcock. Born in 1851, at the age of thirteen he lost the sight of both eyes by an accident. After studying for three years at the Institution for the Blind in Philadelphia, he took a preparatory course at Olivet, Michigan, and then entered Western Reserve College, Ohio, from which institution he has obtained both A. B. and A. M.

DR. ROBERT H. BABCOCK, Chicago, Ill.

It was in 1874 that Dr. Babcock began the study of medicine at Ann Arbor. Two years later he entered the Chicago Medical College and graduated in 1878. The next year he was attending the College of Pysicians and Surgeons, New York City, where he received the M. D. in 1879, standing among the ten honored men in a class of nearly one hundred. In June, 1879, he was married to Miss Lizzie C. Weston, of Mount Clair, New Jersey, and in July, 1880, went with his wife to Germany, where he continued his medical studies for three years. Doctor Babcock located in Chicago in 1883, and is one of the most scientific and successful physicians in that city.

OUR HISTORICAL ARTICLES.

It is with pleasure that we call the attention of our readers to the article on Thomas Willis, England's first Neurologist, from the able pen of Doctor Arthur E. Mink. Readers of this magazine will recall Doctor Mink's graphic sketch of Morgagni, the Founder of Pathological Anatomy, which appeared in an issue of last year. That article was largely commented on and extensively read.

THE MEDICAL SCHOOL AT IOWA CITY.

In the last twenty-five years there has been quietly built up at Iowa City, Iowa, a medical school which is second to none in the West. At a time when the Eastern colleges were just beginning to recognize the value of laboratorial institution, the curriculum of this school included histology, pathology and bacteriology—taught in laboratories. The first school in Iowa to adopt a three years' course. The Medical Department of the Iowa State University has been noted always for the excellence of its instruction and the rigidity of its examinations.

Recent developments must result in placing this excellent school upon even a higher plane. With a new $75,000 State Hospital for the poor of Iowa; with the four years' graded course; with a matriculation examination held by the University authorities independent of the medical faculty; and with laboratory advantages equalled by few American schools of medicine, the Medical Department of the Iowa State University will march grandly onward and upward. The faculty has ever recognized the right of the profession of the State to pass upon the qualification of its candidates for the degree, and no young man or woman can be graduated M. D., who does not receive the vote of the examining committee as well as that of the faculty.

ANTITOXINE IN DIPHTHERIA.

The antitoxine treatment of diphtheria has come to stay. Sufficient time has now passed and enough observations have been recorded to show that under the early use of antitoxine diphtheria presents a mortality of less than six per cent. If used later the mortality is greater. Professor Virchow, the eminent pathologist, who was at first an opponent of the antitoxine treatment, recently read a paper before the Berlin Medical Society, showing that the mortality had been reduced from forty-seven to thirteen per cent. "All theoretical considerations," he said, "must give way to the brute force of these figures."

More Grave Robbing.—The Iowa College of Physicians and Surgeons, of Des Moines, is again in hot water over grave robbing. This is getting to be a regular thing and will result in the destruction of the school if continued.

HISTORICAL SKETCH.

THOMAS WILLIS.

ENGLAND'S FIRST ALIENIST AND NEUROLOGIST.

By Arthur E. Mink, M. D., of St. Louis.

Professor of Mental and Nervous Diseases, College of Physicians and Surgeons.

"Tum quod non ex libris sed ex dissectionibus, non ex placitis philosophorum sed fabrica naturæ discere et docere Anatomsu, profitear."—Harvey, Exercitatio Anatomica.

ENGLAND has the proud distinction of having produced in the seventeenth century two of the greatest medical pioneers the world has ever seen—William Harvey and Thomas Willis. They, perhaps, have contributed more than any other to the overthrow of barbaric mediæval tradition and thereby established medicine upon a rational basis. Harvey, after years of patient research, brushed away the mediæval cobwebs of fable and conjecture which disfigured the noble edifice of science, and gave to the world his marvelously accurate description of the physical phenomena of the circulation of the blood. Thomas Willis, with a genius and industry which astonishes us and leaves a vast abyss between him and his predecessors, ventured among the mazy mysteries and explored the tortuous labyrinths of the most complicated apparatus of the animal body, the nervous system. His labors laid the foundation of scientific neurology.

Thomas Willis was born at Great Bedwin, Wiltshire, January 27, 1621. He studied at Christ Church, Oxford, and bore arms for the Royalists when that city was garrisoned for the king. He took the degree of Bachelor of Medicine in 1646, and after the surrender of the garrison commenced the practice of his profession. In 1660 he was elected Sedleian Professor of Natural Philosophy, and in the same year he took the degree of Doctor of Physic. In 1664 he discovered the medicinal springs of Astrop, near Brackley, in Northamptonshire. He was one of the first members of the Royal Society, and was elected honorary fellow of the Royal College of Physicians in the same year. In 1666, after the London fire, he removed to Westminster, on the invitation of Dr. Sheldon, Archbishop of Canterbury. He rapidly acquired an extensive practice, his reputation and skill proving him to be one of the great physicians of his century. He died at St. Martins, November 11, 1675, and was buried in Westminster Abbey. The researches of Willis cover almost the whole domain of medicine, including pharmacology, pathology, physiology, neurology, comparative anatomy, psychology and psychiatry.

Willis, like Harvey, well understood the value of comparative anatomy in the elucidation of anatomical and physiological problems, and in his *Cerebri Anatome* cap. 1. he says: "*Ut perfecta cerebri ejusque partium notitia obtineri queat, non modo capita humana, verum aliorum cujuscunque generis animalium dissecare ac inspicere oportebit.*" He states that on account of the complexity and size of the human brain, intricacies will be better understood at first by dissecting the brains of animals. "Quæ quidem omnia, velut in epitomen redacta, Zootomia magis commode et plane

refert." Erasistratus affirmed that the cerebral convolutions were more numerous in man and related to his superior intelligence. Willis, however, inaugurated our modern anatomy of cerebral convolutions by pointing out that the convolutions were fewer in brutes than in man, and that the ape had more than the dog or fox. He stated that the fewer the convolutions, the more regular and symmetrical they were, and this paucity was accompanied by more definite and limited instincts. On the other hand the asymmetry of more richly convoluted brains was associated with greater freedom and diversity of mental operation. Strange to say that for about two hundred years anatomy made but little advance beyond these statements until Leuret, Owen, Huschke, Gratiolet and others put our knowledge of cerebral convolutions upon a firm scientific foundation. When we consider the contributions of Willis to the anatomy of the brain, it is surprising to see the enormous difference between the exact, comprehensive and minute descriptions of Willis and those of any of his predecessors. By injecting the blood vessels with colored fluids he discovered the arterial anastomosis at the base of the brain, which bears his name. He described the corpora striata, the optic thalamus, anterior commissure, pyramids and olives. He recognized the relation of the olivary bodies to the corpora quadrigemina, and recognized that the anterior peduncle of the cerebellum was connected with the cerebrum, a fact which was ignored for 150 years. His "*De Anima Brutorum*" is a comparative anatomy, physiology and psychology, along with a treatise upon neurology and psychiatry, all combined in one. No author of the present day could emphasize more strongly than Willis has done in this work, the immense value of a general training in biology for the scientific physician. Chapters three and four contain some illustrations of animal anatomy, viz.: The tracheæ of insects, the anatomy of an oyster, lobster and earthworm, which are surprising for their time. In some respects this work is still a classic and is quoted by authors on comparative anatomy like Carus, Siebold and Gegenbauer. This work is yet instructive in many respects, although it is permeated by the erroneous theories prevalent in his day and age. Nevertheless there is a reprehensible tendency prevalent at the present day and age to consider the older authors as having written nothing worth reading.

We do not think so, for sometimes our boasted advances in knowledge depend upon changes in words only. Willis, like others, used the term animal spirits in his explanation of nervous and mental phenomena. Let us assume for a moment that by animal spirits we mean nervous energy, and we shall then see how well Willis has explained many phenomena of the nervous system. Willis says: That sensation and movement occurs in this way, that the animal spirits receive an impulse either from nerve endings or from the brain, without streaming back and forth. In sensation the objects stamp their character upon the animal spirits in the sensory organs, which are then propagated to the corpora striata. *In motion the animal spirits, excited by the brain and spinal cord, are urged toward the muscles, where it meets with the blood, causing an explosion which swells up the muscle, so producing a contraction.* We see that this last section will make a favorable comparison with the theories of our modern physiologists regarding the explosive decomposition of a supposed contractile substance, *e. g.* inogen of Hermann. Willis further says that if this vibratory move-

ment given to the animal spirits in sensation passes beyond the corpora striata through the corpus callosum to the convolutions, perception then becomes imagination and memory. He holds the convolutions to be the seat of phantasy and thought. The pictures of objects traverse the corpora striata as through a lens, and then are taken up by the corpus callosum and registered in the convolutions.

We can see from these sentences how, in many respects, the ideas of Willis largely agree with those of our modern physiologists and psychologists, excepting his erroneous notion in regard to the functions of the corpora striata and corpus callosum. Many of Willis' ideas are visionary in the extreme, but in them all we see evidence of a great genius struggling with the most perplexing problems man has to deal with, and withal in the infancy of science. Willis, in his *De Morbis Convulsivis*, has foreshadowed the nervous discharge theory of Todd and Hughlings-Jackson as an explanation of the physiological mechanism of convulsive disease; for he speaks of convulsions being caused by an explosion of animal spirits in the muscles.

Caput Primum treats of *De Spasmis sive motibus convulsivis en genere. Caput II.* of epilepsy, and in *Caput III. Epilepsiæ differentiæ et symptomatum quonendam rationes explicantur. Nec non ejus methodus therapeutica adumbratur. In Caput IV.* he deals in a very interesting way of the various kinds of convulsions, and especially concerning the convulsions of children, and in this chapter he gives one of the most accurate accounts of infantile convulsions we have ever read, and is an additional proof of this great man's powers of observation. This chapter, in every way, is most instructive, excepting the therapeutics, characteristic of his time, that is to say, it is the *ne plus ultra* of heroic therapeutics. The next chapter treats of the spasms of adults, with mention of several cases. The succeeding chapters, of many kinds of convulsions, not recognized by modern pathology. Willis is undoubtedly the first alienist of England. He was the first to attempt to give us anything like a mental pathology. His chief contributions to mental pathology make up the second part of his *De Anima Brutorum*.

He says in Caput X.: "Cune plures sint modi, quibus imaginatio et per consequens mens et voluntas aliaeque superioris animae potentiae, perverti aut depravari solent, illae omnes communi desipientiae vocabulo insignuntur. Haec autem affectio distingnitur in breviorum, quae Delerium appelatur, ac longiorem sen continuam, quae aut fibri conjuncta est et dicitur Phrenitis, vel sine febre contingit, eique aut Rabies aut Tristitia Stupidita adjungitur proindique in Maniam, Melancholicam et Morosin dividitur." This is the first description of delirium in the sense in which it is used by Morel, Griesinger, Foville fils, Mendel and others.

The Phrenitis of Willis and other older authors is doubtless about the same thing as the Delerium Acutum of modern authors.

He gives good descriptions of melancholia and mania, dividing them into general and partial. He defines melancholia in Caput XI. as "*desipientia sine febra aut furore cum metu et tristetiae conjuncta.*" Of mania he says, Caput XII.: "De maniacis observare est, haec tria illis fere omnibus esse communes scilicet princuns corum phantasis, sive imaginationes cogitationem impetuosarum estu perpetus occapari pronine ut dies et noctes, varia sibi obmusmurent aut clamando et ejulando proferant.

Secundo notiones sive conceptus, aut incongeno esse aut sub specie falsa, sive erronea iis representari. *Tertio illorum delerio audaciam et furorem sepe adjungi, contra ac in melancholicis, qui timore ac moestitia semper afficiuntur.*

He recognized the succession of mania and melancholia, and so paved the way for Baillarger's discovery of circular insanity.

He described idiocy and imbecility and the various kind of dementia, including stuporous dementia. Willis was renowned in his time for his knowledge of chemistry and physics. His "*Opera Omnia*" include treatises on fermentation, fever, urine, scorbutus, hysteria, and hypochondriasis, muscular motion, etc. His treatise "*Pharmaceutice Rationales*" is a complex work on materia medica, pharmacology, special pathology and therapeutics.

St. Louis Clinique.—We are much pleased with the new dress of this excellent journal, of which Doctor Thomas Osmond Summers is editor. Each number shows an improvement.

Up to Date.—We respectfully call the attention of our readers to Doctor Adams' article in this issue. It was read before the St. Louis Academy of Medical and Surgical Sciences at a recent meeting.

St. Louis Baptist Hospital.—The Trustees of this Institution have purchased the elegant Niedringhaus mansion on Garrison and Franklin avenues, and will occupy it in April. The new location is not surpassed by that of any hospital in St. Louis.

New Journal.—A new quarterly journal devoted to the eye, ear, nose, throat and skin, will be issued simultaneously in London and St. Louis in July. Each department will be represented by an American and a foreign editor, and collaborators will be chosen from every civilized country.

Society of Eye and Ear Surgeons.—On April 9th and 10th, a meeting of eye, ear, and throat surgeons will be held in Kansas City for the purpose of perfecting a permanent organization. The meeting will be called to order by Doctor J. H. Thompson, President of the Kansas City Academy of Medicine. Doctor C. Lester Hall, President of the Missouri State Medical Society, will give the Address of Welcome, which will be answered by Doctor R. S. Black, President of the Kansas State Medical Society. Among the prominent specialists who have promised to attend, are Doctors Carl Barck, A. Alt, and William Porter, of St. Louis; William Sheppegreel, of New Orleans; W. W. Bulette, Pueblo, Colorado; and W. C. Pipino, of Des Moines, Iowa.

Commencements at Keokuk.—On March 3d the two medical schools of Keokuk held their graduation exercises. The College of Physicians and Surgeons graduated a class of 52. The doctorate address was given by Hon. John Gibbons of Chicago. President D. B. Hillis made the introductory address and Hon. John E. Craig, president of the college corporation, conferred the degrees. The Keokuk Medical College graduated a class of 38. Prof. C. E. Ruth delivered the doctorate address and Dr. Marcus Tessler gave the valedictory.

DEPARTMENT OF SURGERY.

CONDUCTED BY GEO. W. CALE, M. D., F. R. M. S., SURGEON TO THE WOMAN'S HOSPITAL, ETC.

Craniectomy for Imbecility. Spanbock (*Neurol. Centralblatt*, September 15th, 1895) records a case of imbecility improved by craniectomy. The patient was a boy, aged 14, of exceedingly weak intellect. When questioned he either repeated the words of the question or answered in an altogether meaningless way; he was restless both in his ideas and in his bodily movements; he was unable to remember events of the past few hours. Morally he was equally weak; he was addicted to abusive language, and often tried to strike and injure others, sometimes throwing stones at them; he was given to stealing, dirty in his habits and always suspicious. The body is well formed, with the exception of the head, which shows low forehead, large projecting ears, and high palate with widely separated teeth. Craniectomy was performed, portions of both parietal bones being removed; at the operation the dura mater was opened, and the brain substance seen to be œdematous, gelatinoid in appearance; stimulation with faradism of the motor centres gave corresponding muscular contractions. The patient made a good recovery from the operation, and there was at first no change in his condition. After two months improvement began, with occasional relapses, until at the end of a year there is distinct permanent improvement both intellectually and morally. The moral change is most striking and complete: the tendency to stealing, lying, abusive language, etc., has disappeared, and the patient is now an industrious, trustworthy person, grateful for the operation and particularly anxious to have a weak-minded acquaintance improved similarly. The good result of the craniectomy is difficult to explain; suggestions are made that it is due to the greater space allowed for the development of the brain; that the œdema of the brain mentioned disappeared owing to the increase of space; that some external factor, perhaps the faradic current used, affected the brain when exposed.—*British Medical Journal.*

The Surgical Treatment of Cancer of the Stomach. QUENU (*Revue de Chirurgie*, October, 1895), advocates the following treatment in cases of gastric cancer affecting the pyloric region. He would perform an exploratory laparotomy with the object of making out with precision the seat and nature of the disease, and of determining whether or not the new growth be amenable to a radical operation. If the pyloric cancer could not be directly attacked and removed by operation he would perform gastro-enterostomy. If, on the other hand, there were good prospects of removing the whole of the diseased structures he would also establish an anastomosis between the stomach and jejunum, and, after an interval of from ten to fifteen days, perform pylorectomy. The removal of cancer of the pylorus in two stages presents, it is maintained, important advantages. In the first place, by a preliminary gastro-enterostomy the duration of the subsequent operation of pylorectomy is much shortened, and in the second place, when the patient has been much enfeebled through inanition, the first operation permits of

speedy renewal of vigor by nourishment, and consequently favors more resistance agaist the immediate results of the serious operation of gastrectomy. The author has used Murphy's button, and recommends it to his colleagues. In one of his cases of gastric cancer, although he had had no previous experience of this appliance, he performed gastro-enterostomy in less than twenty minutes, much of the time having been taken up in exploration of the tumor and its connections. The objections that have been made to its use he regards as theoretical rather than real and practical. The button, he has no doubt, can be expelled from the intestinal canal by the normal way, and in his own practice he has had no reason to suspect any subsequent contraction of the gastro-jejunal fistula.

The Action of Erysipelas Serum on Malignant Growths. KOPFSTEIN (*Wiener klin. Rundschau*, 1895, Nos. 33 and 34) has tried the action of three different strengths of serum from sheep inoculated with erysipelas streptococci in 15 cases of malignant disease; 13 of these were carcinoma, 1 sarcoma, and 1 malignant lymphoma. In almost every case the injection was accompanied by violent burning pain in the tumor, often lasting some hours. Severe headaches and pains between the shoulders and in the loins were almost the rule; while many of the patients suffered also from joint and pleuritic pains. Rigors, with grave general cyanosis, followed by great weakness, were seldom absent after the injection; in one case two rigors followed a single injection. As a rule injection was followed by a rise of temperature, the highest being 105.8°, the average 101.2°. The rise was usually with the rigors, but in one case the temperature reached 103° without a rigor. The fever came on half or one hour after the injection, and lasted four to six hours. There was no albumen in the urine. Other occasional consequences were nausea, vomiting, noises in the ears, diarrhœa, palpitation, epistaxis, and dyspnœa. Injection of the primary tumor had no effect on the secondary growths, but rather led to an increase in the size of the glands. Injections into the metastases did not affect the primary growth, but the metastases themselves became a little harder than before owing to an increase of connective tissue. The carcinomatous nests were, however, unaffected. Primary non-ulcerated growths behaved like injected metastases. There was prolonged swelling and tenderness after the injection, at the seat of which an abscess formed in one case. In another the tumor broke down, and discharged carcinomatous masses without pus. Ulcerated growths showed well-marked reaction to injection. The base took on a healthy appearance, the stinking secretion disappeared, and the edges became flatter and eaten out. In some cases the whole basis and margin softened, and numerous islets of soft red tissue shot up on the healthy soil. Histological examination of these, however, showed granulation tissue, containing cell nests with perfectly formed cancer cells. The secondary growths were in no instance affected. The only action upon malignant lymphoma was clearing up of a gangrenous ulcer, while a sarcoma of the ilium became larger after injection, and the patient developed sciatica, which had not before been present. Kopfstein hence considers the action of this serum to be purely local, the tumors undergoing alteration only in the immediate neighborhood of the injections. Even where diminution of the growth occurs, which is mainly in ulcerated cases,

no prospect of cure can be held out. He strongly endorses Brun's view that this new method has not in the least advanced the non-operative treatment of malignant disease.

Tuberculosis and Neoplasm of the Bladder: Surgery or Hygiene? At the recent meeting of the American Association of Genito-Urinary Surgeons (*Med. News*, June 22d), L. Bolton Bangs, of New York, read a paper with the above title. He reported three cases of tuberculosis of the bladder, which he stated were typical of many, and in which the hygienic treatment was followed by very beneficial results. Among the many troublesome cases of disease of the bladder one was called upon to treat, none was more difficult than those due to tuberculous infection. At first the symptoms in these cases were often obscure and so similar to those produced by other morbid conditions that the diagnosis was frequently doubtful, and in many even impossible. Later on the clinical picture became so characteristic that all doubt as to the diagnosis was removed. But at this stage treatment could effect but little. But if the disease could be discovered in its incipiency and proper measures taken for its relief, it might be regarded as curable, certainly in the sense of being held in abeyance. Vitalization of tissue was what these patients needed, and they required at least two years of good hygienic residence in a temperate climate; and besides climate they needed occupation. Surgical traumatism produced by overzealous efforts to relieve local symptoms seemed to result in more harm than good. The author also reported three cases of malignant disease of the bladder, in which he stated that a cure also depended upon an early diagnosis. Unfortunately, in these cases many of the early symptoms were overlooked or misunderstood. In conclusion he stated that he had contrasted these two groups in order to present for discussion the points: (1) that cases of incipient tuberculosis of the bladder should be subjected to hygienic rather than to surgical treatment, and (2) that in the incipient stages of neoplasms surgical treatment of the most radical kind should be instituted. J. P. Bryson (St. Louis) said he was entirely in accord with the statements made by Bangs regarding the treatment of the tuberculous cases. In tuberculous cystitis perineal drainage was not to be recommended. In two of his cases the perineal wound became infected and failed to heal. The suprapubic route was altogether to be preferred when drainage is to be resorted to. In cases of vesical neoplasms the symptoms frequently came on late. If the new growth was situated toward the fundus, or at any considerable distance away from the vesical outlet, there was no reason why we should get any symptoms of its existence for a considerable length of time, and the first symptom was likely to be hemorrhage. G. W. Allen (Boston) reported a case of tuberculosis of the bladder in which the symptoms entirely dissappeared under hygienic treatment.

New Hospital.—A new hospital will doubtless be located in Iowa City and will be free to the poor of Iowa. A bill providing for a special university tax has passed the legislature.

Dr T. J. Maxwell.—We recently had the pleasure of calling upon this well known Keokuk surgeon, and were gratified to find him in good health and enjoying a large practice.

Catarrhal Diseases of the Respiratory Passages. By J. M. G. CARTER, M. A., M. D., Sc. D. Ph. D., of Chicago. Octavo, pp. 135. Chicago: E. H. Colegrove & Co., 1895. Price, $1.00.

Doctor Carter's book deals with catarrh, rhinitis, pharyngitis, tonsillitis, laryngitis, bronchitis, catarrhal asthma, and pneumonias. It is a readable monograph.

The Principles and Practice of Medicine. By WILLIAM OSLER, M. D., F. R. C. P., Lond. Second edition. Octavo, pp. xvii-1143. New York: D. Appleton and Company, 1895.

In this edition several chapters have been rewritten, all carefully corrected and several rearranged. It is sufficient to say that Professor Osler's book is our standard American authority on Theory and Practice.

A Manual of Medical Jurisprudence and Toxicology. By HENRY C. CHAPMAN, M. D., of Philadelphia. Octavo, pp. xv-254. Philadelphia: W. B. Saunders, 925 Walnut Street, 1896. Price, $1.50 net.

This is the second edition of Professor Chapman's valuable Manual. It has been improved by the addition of a brief bibliography. The illustrations have been selected with care, and the text is modern and authoritative.

Diagnosis, Differential Diagnosis and Treatment of Diseases of the Eye. By A. E. ADAMS, M. D., Instructor in Diseases of the Eye in the Post Graduate Medical College, New York. Duodecimo, pp. v-94. G. V. Putnam's Sons, 1894.

Doctor Adams, while in general practice, learned how tedious it is to sift out of the larger text-books the diagnostic symptoms of the different eye diseases, and this lead to the compiling of the present little book. Under each disease the reader can find the different diseases or conditions which may be confounded.

The book is made up of diagnostic tables, most of which are excellent.

Diet in Sickness and in Health. By MRS. ERNEST HART, with an Introduction by Sir Henry Thompson, F. R. C. S., M. B., London. Crown Octavo, pp. xii-219. London: The Scientific Press, Limited, 428 Strand, W. C., 1895.

This charming little book deals with Food and Food Values, Stimulants, Under-feeding and Over-eating, Digestion, Indigestion, Invalid

Foods, Gastritis, Ulcer of the Stomach, Diabetes, Gout, etc. The author has produced a book which is useful alike to the sick and those who minister to the sick. Medical men will find the dietaries practically useful. The work of Mrs. Hart has received the indorsement of Sir Henry Thompson.

Manual of Gynecology. By HENRY T. BYFORD, M.D., Professor of Gynecology and Clinical Gynecology, in the College of Physicians and Surgeons of Chicago. With 234 Illustrations. Octavo; pp. XII–488. Price $2.50. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1895.

The author has given the profession a book complete enough for study or reference during the student's college course, and during the first few years of practice. The arrangement of the work is to be commended, and there can be no doubt of the value of the book. At a time when so many books on gynecology are on sale, it is no faint praise to say that Doctor Byford's treatise has come to stay.

The Functional Examination of the Eye. By J. HERBERT CLAIBORNE, JR., M.D., Adjunct Professor of Ophthalmology in the N. Y. Polyclinic; Instructor in Ophthalmology College of Physicians and Surgeons, N. Y.; Assistant Surgeon to the New Amsterdam Eye and Ear Hospital; Author of "Theory and Practice of the Ophthalmoscope." 100 pages with 21 Illustrations. Philadelphia: The Edwards & Docker Co., 518 and 520 Minor Street, 1896.

We have read Doctor Claiborne's book with great pleasure. The volume consists of a number of lectures delivered at the N. Y. Polyclinic during the last eight years and more particularly of a number of lectures or lessons in a practical course delivered to the graduating classes at the College of Physicians and Surgeons, New York. The author's purpose is to make the subject of fitting glasses clear to any one who reads the book. He makes no claim for originality but trusts he has put the matter, ordinarily unattractive, in an attractive form. We regret that the author says nothing about retinoscopy, the most valuable of objective methods of determining refraction errors. The chapter on mydriatics is unsatisfactory. Under this topic the author deals with homatropine and atropine only. Not a word is said about other mydriatics. We wish to take issue with the statement: "There is little doubt amongst authority that mydriatics were formerly more frequently prescribed than was necessary." In a reasonably large experience we have learned to depend more and more upon mydriatics. The author says (p. 85): "It is safe to say, however, that they (mydriatics) are rarely, if ever, necessary after the age of forty." We have notes of several cases of mixed astigmatism and other errors in people over forty in whom a mydriatic was absolutely necessary.

Over the Hookah, or the Tales of a Talkative Doctor. By G. FRANK LYDSTON, M.D.

This is an example of the lighter vein in medical literature—if, indeed, it can be called medical literature at all. It is rather the excursion of a medical man in the domain of letters. Of these there have been an increasing number of late. To say nothing of the more ambitious attempts by members of the profession in this country, there have been the minor effu-

sions of the "Country Doctor," "The Physician Himself," and "The Doctor's Wife."

As the title indicates, Dr. Lydston has produced a book for the leisure hours of the physician and all other tired brain-workers who appreciate a well told tale or a jingling rhyme. While the main purpose of the book is to amuse, it contains many instances where philosophical truth comes near the surface. The Doctor's wide reputation as a story-teller, and his admitted literary bias, cannot but secure a favorable reception of his book, from both the lay and medical public.

The book is not yet published, but we have been favored with advance sheets of some chapters. If the whole work bears out the impression made by the portion which we have seen, the author will achieve signal distinction in the domain of humorous medical literature.

The book purports to be a series of conversations between one Dr. William Weymouth and a certain student of medicine. An idea of the contents will be gained by a glance at the chapter headings, some of which are: "How the Doctor Emulated Sandow;" "Old Abe as a Musical Critic;" "The Rhodomontades of a Sociable Skull;" "A Martyr to His Passions;" "Seeing Things;" "Larry's Contribution to the Psychology of Fish and the Conversion of Finn the Irish Giant; "The Passing of Major Merriwether; "An Impromptu Symposium;" "My Crœsus: A Tale of a Generous Patient."

An American Text-Book of Obstetrics for Practitioners and Students. By JAMES C. CAMERON, M. D., EDWARD P. DAVIS, M. D., ROBERT L. DICKINSON, M. D., CHARLES WARRINGTON EARLE, M. D., JAMES H. ETHERIDGE, M. D., HENRY J. GARRIGUES, M. D., BARTON COOK HIRST, M. D., CHARLES JEWETT, M. D., HOWARD A. KELLEY, M. D., RICHARD C. NORRIS, M. D., CHAUNCEY D. PALMER, M. D., THEOPHILUS PARVIN, M. D., GEORGE A. PIERSOL, M. D., EDWARD REYNOLDS, M. D., HENRY SCHWARZ, M. D. RICHARD C. NORRIS, M. D., Editor. ROBERT L. DICKINSON, M. D., Art Editor. With nearly 900 colored and half-tone illustrations. W. B. Saunders, Philadelphia, 1895. Price, Cloth, $7.00; Sheep, $8.00; one-half Russia, $9.00. For sale by subscription only.

The book is divided into six sections. Section I. is devoted to the anatomy and physiology of the generative organs. Section II. discusses the physiology, diagnosis, hygiene and management, and pathology of pregnancy. Section III. treats of the physiology of labor, the conduct of normal labor, mechanism of labor and dystocia. Under this section Dr. Barton C. Hirst discusses deformities of the pelvis with rules for pelvimetry and presents a long array of illustrations representing abnormal pelves. Section IV. treats of the puerperium—its physiology, management and pathology and the diagnosis of the puerperal state. In Section V. Dr. Earle and Dr. Etheridge discuss the physiology and pathology of the new-born babe; and section VII. is devoted entirely to obstetric surgery.

All figures have been drawn to scale, in nearly all instances being either one-third or one-sixth life size; in sagittal sections the same half is always shown.

The book at once takes the rank of an authoritative exposition of the present state of obstetrical science. The paper, illustrations and press work are of the best.

FORMULAE.

Ozena.—

℞ Pure glycerine ..... 70 grammes
Borax ..... 20 grammes
Distilled water ..... 30 grammes

S.—Used as a nasal spray two or three times a day.

—*Nouveaux Remedes.*

For Vaginitis.—

℞ Pulv. alum,
Zinci sulphatis,
Sodii biboratis,
Acidi carbolici, ... aa ℥ j
Aq., ... ℥ vj

M. Sig. A tablespoonful to a quart of luke-warm water as a vaginal injection twice daily.

—*Vanderbilt Clinic.*

Creamy Emulsion of Cod Liver Oil.—

℞ Cod liver Oil ..... 500 parts.
Finely sifted sugar ..... 190 parts.
Pulv. gum arabic,
Pulv. gum tragacanth ..... aa 5 parts.
Infusion of coffee ..... 200 parts.
Rum ..... 100 parts.

Mix the sugar and gums in a mortar, and in the bottle which will contain the emulsion shake together the oil and cold infusion of coffee. Pour a sufficient quantity of this liquid into the mortar to make a paste. While stirring, add to the portion remaining in the bottle the rum, and then gradually incorporate it with the emulsion.—*Therapeutic Gazette.*

For Seasickness.—

℞ Cocain. hydrochlor.,
Ext. opii, ... aa gr. iss
Powd. marshmallow root, ... q. s.

M. and divide into pills No. x. Sig. One pill every other hour.

For Dysmenorrhœa.—

℞ Cupri arsenitis ..... gr. $\frac{1}{65}$
Tinct. pulsatillæ ..... m xv
Tinct. nucis vom., ... m viij
Aq. dest. ..... ℥ iiiss

M. Sig. One teaspoonful every hour, or half hour, until the pain is relieved.

—*Lancet.*

For Dyspepsia.—

℞ Acid hydrochlor. dil ..... ℥ ss
Tinct. nucis vom ..... ℥ ij
Liq. potass. arsen ..... gtt. lxxij
Ess. of pepsin, ... q. s. ad. ℥ vj

M. Sig. Two teaspoonfuls in water after meals.

For Nettle Rash.—

℞ Sugar of lead ..... gr. xv
Dil. hydrocyanic acid ..... ℥ iv
Alcohol ..... ℥ viiss
Aq. dest., ... q. s. ad. ℥ ij

M. Sig. To be applied on cotton wool to the rash.

—*Dublin Journal of Medical Sciences*

MEDICAL SOCIETY MEETINGS FOR 1896.

LOCAL SOCIETIES.

I. St. Louis Academy of Medical and Surgical Sciences, meets every Friday evening.

II. St. Louis Medical Society, meets every Saturday night, in Public Library Building, Ninth and Locust Streets, at 8 o'clock.

STATE AND NATIONAL MEETINGS.

April 7. Medical Association, District of Columbia, at Washington, D. C.

April 7. Golden Belt (Kansas) Medical Society, at Herrington.

April 7. Florida Medical Association, at Sanford.

April 7, 8 and 9. Tri-State Medical Society of Iowa, Illinois and Missouri, at Chicago.

April 9–10. Western Association of Ophthalmologists, at Kansas City.

April 14. Tennessee State Medical Society, at Chattanooga.

April 15. Iowa State Medical Society, at Des Moines.

April 15. Medical Association of Georgia, at Augusta.

April 21. Medical Society of California, at Los Angeles.

April 21. Medical Association of Montana, at Bozeman.

April 21–24. Medical Association of Alabama, at Montgomery.

April 22. South Carolina Medical Association, at Spartanburgh.

April 28. Texas State Medical Association, at Fort Worth.

April 28. Medical and Chirurgical Faculty of Maryland, at Baltimore.

April 29. Arkansas State Medical Society, at Fort Smith.

April 30–May 2. Association of American Physicians, at Washington, D. C.

May 2–4. American Academy of Medicine, at Atlanta, Ga.

May 5. Louisiana State Medical Society, at New Orleans.

May 5–8. American Medical Association, at Atlanta, Ga.

May 12. Medical Society of North Carolina, at Winston.

May 13–15. Kansas Medical Society, at Topeka.

May 14–15. Southern Illinois Medical Association, at East St. Louis.

May 18. American Orthopedic Association, at Buffalo, N. Y.

May 19–21. Illinois State Medical Society, at Ottawa.

May 19–21. Missouri State Medical Association, at Sedalia.

May 19. State Medical Association of Pennsylvania, at Harrisburg.

May 19–21. Washington State Medical Society, at Tacoma.

May 26. American Gynecological Society, at New York City.

May 27–28. Connecticut Medical Society, at New Haven.

May 27–29. Ohio State Medical Society, at Columbus.

May —. American Laryngological Association, at Pittsburg.

May —. American Paedriatic Society, at Montreal, Canada.

June 1–2. New Hampshire State Medical Society, at Concord.

June 3. Maine Medical Association, at Portland.

June 4. Rhode Island Medical Society, at Providence.

June 4–5. Ontario Medical Association, Windsor.

June 4–5. Michigan State Medical Society, at Mt. Clemens.
June 5–6. Indiana State Medical Society, at Fort Wayne.
June 9–10. Massachusetts Medical Society, at Boston.
June 16–18. Colorado State Medical Society, at Denver.
June 17. Minnesota State Medical Society, at Minneapolis.
June 20. American Association of Physicians and Surgeons at Niagara Falls.
June 23. Medical Society of New Jersey, at Asbury Park.
June 23. Medical Society of Delaware, at Newark.
June —. American Association of Genito-Urinary Surgeons, at Atlantic City.
June —. Association of Military Surgeons of the United States, at Philadelphia.
June —. Nebraska State Medical Society, at Fremont.
June —. Oregon State Medical Society, at Portland.
June —. Wisconsin State Medical Society, at Superior.
June —. Kentucky State Medical Society, at Lebanon.
July 15. American Ophthalmological Society, New London.
July —. Medical Society of West Virginia, at Wheeling.
August 12. New Mexico Medical Society, at Socorro.
September 8. American Dermatological Society, at The Springs of Virginia.
September 15. American Association of Obstetricians and Gynecologists, at Richmond, Va.
September 17. Medical Society of the Missouri Valley, at Council Bluffs, Ia.
September —. Medical Society of Virginia, at Danville.
September —. Idaho State Medical Society, at Boise City.
September —. American Electro-Therapeutic Association, at Boston.
October 1–2. Utah State Medical Society, at Salt Lake City.
October 10. Army and Navy Medical Association, at Chicago.
November 10. Southern Surgical and Gynæcological Association, at Nashville, Tenn.

Secretaries of Medical Societies will confer a favor by informing us of dates of meetings.

PRELIMINARY PROGRAM OF THE ANNUAL MEETING OF THE TRI-STATE MEDICAL SOCIETY, TO BE HELD IN CHICAGO, AT GREAT NORTHERN HOTEL, APRIL 7, 8 AND 9, 1896.

Dr. Nicholas Senn, Surgical Clinic; Dr. John B. Murphy, Surgical Clinic; Dr. J. H. Etheridge, Gynecological Clinic; Dr. F. Henrotin, Gynecological Clinic; Dr. J. M. Mathews, Louisville, Public Address; Dr. J. J. M. Angear, Chicago, Subject Unannounced; J. R. Ash, Brighton, Ill., Subject Unannounced; Frank Allport, Minneapolis, Subject Unannounced; Wellington Adams, St. Louis, "A New and Practical Method of Opening and Dilating the Eustachian Tube;" J. J. Brownson, Dubuque, Ia., "Chest Drainage in Empyema;" J. M. Ball, St. Louis, "Eye Symptoms in Brain Tumor;" G. W. Barr, Quincy, Ill., "The Use of Patent Medicines;" G. Wiley Broome, St. Louis, "The Diagnosis

and Surgical Treatment of Cancer of the Cervix;" D. C. Brockman, Ottumwa, Ia., "Points in Surgical Practice:" A. H. Cordier, Kansas City, "Pregnancy Complicated by Cancer of the Cervix—Report of Case;" G. W. Cale, St. Louis, "Surgical Treatment of Brain Tumor;" F. B. Dorsey, Keokuk, Ia., "Fracture of Pelvis, Complicated with Pregnancy;" L. H. Dunning, Indianapolis, Subject Unannounced; C. Travis Drennen, Hot Springs, Ark., "Gonorrhœal Rheumatism;" H. C. Eschbach; Albia, Ia., "Colles Fracture;" R. C. Heflebower, Cincinnati, "Foreign Bodies in Crystalline Lens" and "The Ophthalmoscopic Findings in Reynaud's Disease;" Webb J. Kelly, Galion, O., "The Treatment of Unreduced Fractures of the Lower End of the Radius;" Emory Lanphear, St. Louis, Subject Unannounced; Merrill Rickets, Cincinnati, "Anal Fistula, Peritonitis, Laparotomy, Recovery;" Adolph Meyer, Worcester, Mass., "Etiological, Clinical and Pathological Factors in Diagnosis and Rational Classification of the Infectious and Toxic Diseases of the Peripheral Nerves, Spinal Cord and Brain:" C. B. Nancrede, Ann Arbor, Mich., "The Operative Treatment of Jacksonian and Focal Epilepsy as Illustrated by Selected Cases;" Paul Paquin, St. Louis, "Some Recent Criticism on the Serum Therapy;" Roswell Park, Buffalo, N.Y., "Auto-Infection in Surgical Cases;" J. F. Percy, Galesburg, Ill., "Special Education as a Means of Treatment in Chronic Neurasthenia;" John Punton, Kansas City, Subject Unannounced; F. Reder, Hannibal, Mo., "Remarks on a Partial Dislocation of the Axis:" D. S. Reynolds, Louisville, "Local Treatment of the Eye;" R. Harvey Reed, Columbus, O., "Subject Unannounced;" E. O. Sisson, Keokuk, "Ulcerative Inflammation of the Cornea;" T. O. Summers, St. Louis, "Leucocytosis, Its Relation to Modern Therapy:" W. W. Wathen, Louisville, "Pathology of Cystic Tumors of the Ovary and Broad Ligaments;" O. B. Will, Peoria, "Dysuria in the Female;" Alex. Hugh Ferguson, Chicago, "Pylorectomy in America:" D. R. Brower, Chicago, "Anæmia and its Relation to the Nervous System with Suggestions as to Treatment;" John Ridlon, Chicago, "Flat Fist;" J. B. Bacon, "Conservative Surgery in the Treatment of Hemorrhoids;" Weller Van Hook, Chicago, Subject Unannounced; Wm. Allen Pusey, Chicago, Subject Unannounced; Arthur Edwards, Chicago, Subject Unannounced; Frank Billings, Chicago, Subject Unannounced; Gustav Fuetterer, Chicago, Subject Unannounced; T. J. Shuell, Parnell, Ia., "The Relation of Fæcal Impaction to Appendicitis;" Dr. Otto Sutter, St. Louis, Subject Unannounced; Dr. A. E. Mink, St. Louis, Subject Unannounced; Dr. G. H. Thompson, St. Louis, Subject Unannounced; Dr. Harry Wells, St. Louis, Subject Unannounced; Geo. F. Hulbert, St. Louis, Subject Unannounced. For regular program, address,

DR. G. W. CALE,
4403 Washington Boulevard,
St. Louis.

Promoted.—Dr. J. R. Guthrie, of Dubuque, Iowa, has been made Associate Professor of Obstetrics in the Medical Department of Iowa State University.

Dr. C. M. Hobby.—Dr. Hobby, the oculist of Iowa City, has returned from a delightful cruise in the Gulf of Mexico.

THE PUBLISHER'S DESK.

The Wide-Awake Tailoring Co. 2735 Franklin Ave.—It is doing good work and has a good trade. It was established by Mr. M. Weinberg between three and four years ago. Mr. Weinberg is a young man and an energetic worker. Not only is he a practical tailor, but he is an experienced and skilled cutter, having learned the art of cutting in one of the best schools in New York City, and he keeps up with the fashions and turns out as good work as any tailor in the city. The suits he makes are as fashionable in cut as those made by the most expensive tailor, but his charges are scarcely half as much as those of town houses. He makes pants to order from $3.00 up to any price, according to the goods selected. Elegant suits are made, for as little as $13, worth $20 down town, and they are guaranteed as to material, workmanship and fit. It is worth while to remember these facts, for we are all trying to save money nowadays.

Mr. Weinberg will send for and deliver goods, and all the work will be found first class in every respect. He can save you many a dollar if you patronize him, and the work can be relied upon. There isn't in all the West End a tailor who has better deserved the support of the people, and we are satisfied that he will keep on giving the best satisfaction to every patron.

Mr. Weinberg pays particular attention to the Medical Student trade; Graduating suits being a specialty.

An Antitoxine Testimonial.

WATERLOO, IOWA, September 21st.

"To H. K. MULFORD CO., CHICAGO, ILL.:

GENTLEMEN:—Some time since I procured a quantity of Antitoxine from your house, and provided our local physicians with the same for use in our diphtheria epidemic. Without exception these physicians now commend its use, and this in spite of the fact, that most were somewhat skeptical of the matter. It is also a fact that while Antitoxine was usually resorted to as a last resource, after ordinary measures were considered useless, the wonderful results made converts of us all, and again would be used in every case, the moment the true diphtheretic nature of the disease was ascertained.

The Mulford product gave the best of results, and was found perfectly reliable. In no case was there the slightest ill effects of the treatment, and the progress of the disease was invariably stopped. And only in those cases where the blood had become so charged with the product that elimination was no longer possible, did death ensue.

Our epidemic numbered 70 cases, with four deaths. I am confident had Antitoxine been used early, not over one of the four would have died.

I am very truly,

C. F. BENNETT, Health Officer, City of Waterloo."

Card From Battle & Co.—Dr. C. F. Tucker, of Syracuse, N. Y., Jan. 9, 1896, writes: Some time ago when I was doing a country practice at Jordan, Onondago Co., N. Y., I wrote Messrs. Battle & Co., that I could

not get the uniform results from Bromidia that I had previously. They sent me a 4 oz. sample, and that was all right, and I still have on hand a little of that particular sample.

The party who had dispensed my prescriptions, after I had expressed my opinion very strong, confessed that *he had purchased a considerable quantity of a mixture at a less price, said to contain exactly the same ingredients, and had been dispensing that when Bromidia was prescribed.*

After that I had no more trouble, and I can truthfully say that you can find it in my emergency case, office, and in my regular "grip" always, and I have never seen anything but perfect satisfaction attending its use, and I have given it to patients of all ages, and about every condition.

I have used it in the last stages of pulmonary tuberculosis, and in severe cases of chronic bronchitis, in delirium tremens, etc., and I always use it when I want a certain hypnotic.

I have used it in doses from two minims up to 2 and 3 drachms. It is one of the mixtures of so-called treacherous chloral that has never, thus far, caused alarm. I have been familiar with Bromidia since away back in the 80s, when I was a clerk in a drug store, and since I have been practicing, I still regard it as a reliable old friend, and so it has proved on many occasions.

Zumo Anana.

ZUMO PHARMACAL CO., ST. LOUIS, MO.:

GENTS:—Some time since I received a sample of your Pine-apple Digestive Wine. Having believed that pine-apple juice had a specific value in diphtheria, I dedicated the bottle to the first case which would put it on its mettle. I was called November 11, 1895. Found a bad case of diphtheria. It had been treated three days by a good doctor.

Girl six years old. Marked prostration. Membrane covering arches creeping up posterior nares with nose-bleed, and had so invaded the larynx as to threaten strangulation, her doctor had talked of intubation. Almost incessant vomiting and complete anorexin. I gave friends no encouragement, and undertook the case reluctantly.

Supplementary to my favorite treatment, I gave freely of your wine. The general condition improved so quickly that the friends were sure in 24 hours she was getting well. Vomiting ceased, and she began to call for food. The arches and nares cleared quickly. No more nose-bleed or difficulty in swallowing. The laryngeal condition, which, of course, was my terror, remained stationary for several days, the child meantime sitting up in bed, playing with her doll and dominoes, and wanting to get out of bed, but croupy cough, paroxysms of dyspnœa and whispered talking warned of danger. Then the larynx gradually cleared, and one week from the time I first saw her, I ceased visiting her.

Have given facts tersely. I do not "jump at" conclusions, but intend to try it again. You will have to look a long time to find my recommend of a proprietary medicine, but if part or all of this is of any service to you, you are welcome to it. A. B. CASTLE, M.D., Columbus, Ohio.

Card From Messrs. Farwell & Rhines.—Diet is vital in diabetes. Bread from ordinary white flour, aggravates the disease in spite of medicine, and bran bread and other substitutes are so unpalatable and expensive, patients

cannot use them with satisfaction. Physicians find this a serious drawback in their practice. For this reason we are glad to remind the medical profession of the "Special Diabetic Flour" made by Farwell & Rhines, of Watertown, N. Y., which seems to have general and hearty endorsement wherever tried. The makers believe in their goods, hence their liberal offer of free baking samples. Write them for particulars regarding this and other valuable sanitary flours for dyspepsia, constipation and obesity, and the new diuretic "Barley Crystals."

A Card.—We have frequently received communications from physicians asking us to give the digestive powers of Seng in numerals.

As Seng is not an artificial digestant, but a digestive secernent, this is, of course, impossible.

We therefore desire to correct this erroneous impression with the statement that Seng, through its secernent action, encourages the flow of nature's own pepsin when taken into the stomach, and thus does not dissolve the food *per se*.

The physiological difference between the pepsin and Seng treatment is that the former is an artificial treatment, and a makeshift at best, whilst the latter is a restorer of the natural functions of digestion.

SULTAN DRUG CO.

Neurosine.—The most powerful neurotic attainable, anodyne and hypnotic. A reliable and trustworthy remedy for the relief of hysteria, epilepsy, neurasthenia, mania, chorea, uterine, congestion, migraine, neuralgia and all convulsive and reflex neuroses. The remedy par-excellence in restlessness of fevers. Producing natural sleep. Composition: chemically pure bromides of potassium, sodium and ammonium, zinc, extract belladonna, cannabis indica and cascara sagrada with aromatic elixirs. The medicinal effects of which the profession are well acquainted.

Chronic Dry Nasal Catarrh.—The following prescription is recommended by one who has successfully tried it for chronic dry nasal catarrh:

℞ Liquid Vaseline ..... ℥i
Sanmetto ..... ℥¾
Glycerine ..... ℥¼

To be used as a spray three times daily through an atomizer, and to take internally sanmetto in teaspoonful doses four times a day.

J. W. Williams, M. D., Pickens, S. C., writes:—Recently I have had an opportunity to test the merits of Tilden's Firwein in two cases of chronic bronchitis, with results far beyond my expectations in both. One of the cases, that of a female twenty-eight years of age, had a very troublesome leucorrhœa at the time, and to my surprise and pleasure was entirely cured of both ailments at once. Hereafter I will certainly prescribe Firwein in preference to the ordinary remedies in such cases.

An Amendment.—The Iowa legislature has amended the law creating a State Board of Medical Examiners so that persons interested in medical colleges are ineligible; also the Governor is given power to remove members of the Board for cause.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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ORIGINAL ARTICLES.

SIMPLE EXTRACTION OF CATARACT. DEDUCTIONS BASED UPON A SERIES OF ONE HUNDRED OPERATIONS.

By EUGENE SMITH, M.D., of Detroit, Mich.,

Professor of Ophthalmology and Otology in Detroit College of Medicine, Senior Ophthalmic Surgeon St. Mary's Hospital and St. Mary's Free Eye and Ear Infirmary.

IT is not my intention to burden you with statistics or reports of individual cases, but rather to ask your attention to some deductions drawn from an experience of over one hundred operations for cataract, made by the method called simple extraction, *i. e.*, by the classical flap extraction.

A story has been told of a great sculptor, to whom it was said that he made no progress with a statue. He replied that he altered this fold of drapery, that he retouched that outline, and so forth. It was observed that all these alterations were trifles, and he answered that the aggregate of such trifles constituted perfection, and that perfection is no trifle.

Most operators agree with regard to the main principles on which operations for cataract should be conducted, and that further progress must be in the line of improvement in details.

As a result of greater cleanliness and antisepsis, suppuration of the cornea has become very rare. It is, in fact, no more frequent in the simple than in the combined method, and may be more easily checked, with better chances for useful vision. A beginning suppuration of the cornea in a case in which an iridectomy has been done, is nearly certain to be followed by the penetration of germs into the eye, and a consequent panophthalmitis, the cut iris affording a most excellent intraocular nidus for them; whereas, if an iridectomy has not been made, the iris, lying against the corneal wound, acts as a barrier against their entrance, and the chances of checking the suppuration of the cornea are much better, as I have seen in two cases.

With all operators who have adopted the simple method of operating for cataract I agree that excision of the iris should not be abandoned in all cases, in fact, it can not and should not be omitted in certain cases.

What are the cases in which iridectomy is indispensable?

1. When the iris falls upon the knife during incision of the cornea. 2. In adhesions of the iris to the lens. 3. Where the flap is too small, the lens being large and seemingly immovable. 4. When there are evidences of a glaucomatous condition. 5. When the pupil is small and not active. In all other cases of fully developed cataract, I look upon an iridectomy as an unnecessary mutilation of the eye, and my opinion is based upon an experience of nearly thirty years. I also take issue with those who practice and teach that the technique of the operation is more difficult than in the combined method. For more than twenty years I practiced the latter operation, and in several hundred cases, and I still make it when I deem it necessary; yet I do not hesitate to say that the simple extraction, as its name implies, is the easiest and most simple to make on the part of the surgeon and decidedly so on the part of the patient.

Much of the credit for the return to the classical flap extraction is due to the greater control of our patients which the use of cocaine affords by its anæsthetic effect, and the increased surety against infection which the use of an antiseptic gives us, used with a view to asepsis. The lessons learned by my experience in more than a hundred extractions by the simple method will cause me to continue to make it, and to advise others to make it as *the* operation for cataract.

Preparatory treatment of patient:—For a week or ten days before the operation I have a solution of hydrag. bichloride 1 to 10,000, or a saturated solution of boracic acid, dropped into the conjunctival sac freely twice or thrice a day. In some cases the bichloride solution produces marked irritation. When such is the case I use boracic acid. I suggest to the patient when washing his face to be sure and wash well the eyelids. The instruments are washed in hot water, then dipped in absolute alcohol, and then again in hot water.

Technique of the operation:—I drop a few drops of a four per cent. solution of cocaine, fresh made, into the conjunctival sac, and after a few minutes evert the lids and very thoroughly wash the conjunctiva of the retro-tarsal folds as well as that of the everted lids, and very particularly the edges of the lids, with a 1 to 5,000 solution of corrosive sublimate. A few drops more of the cocaine, and in two or three minutes the patient is ready for operation. I use the speculum during the entire operation. I

EUGENE SMITH, M. D., of Detroit.

always practice the upper section, taking a trifle less than the upper half of the clear cornea, the puncture and counter puncture being made a trifle above the horizontal meridian, the whole section being made in the clear corneal tissue just forward of the limbus. The section is made with a Graefe's knife, and, when finished, I introduce my cystitome forceps and remove the anterior capsule. I prefer this method of dealing with the capsule, as in my experience it has so far done away with all secondary operations on the capsule, so frequent after ordinary incision with the common

cystitome. In not a single instance have I been obliged to make dicission of the capsule, and in no case have I failed to extract the capsule. In one case of thickened capsule the forceps delivered the lens in its capsule without loss of vitreous.

The manner of expelling the lens is important, particularly to one who has been practicing the "Schlitten manœuvre" of Von Graefe in the combined method. The lens cannot be delivered in this manner; the pressure must be made through the cornea, upon the lower border of the lens, in such a way as to tilt its upper edge forward toward the pupil. As the lens, pushing the iris before it, engages in the wound, a gentle sliding upward of the rubber or tortoise shell spoon over the cornea will expel it. The spoon should not come in contact with the wound. Gentle stroking of the cornea with the spoon will usually expel the remains of the cortex if it has not entirely escaped with the cataract. I do not object to cortical remains within reasonable limits. I am well aware that their presence tends to produce iritic irritation, but this very irritation tends to cause contraction of the pupil and prevent prolapse. I have never experienced a severe iritis set up by its presence, and I believe there is more danger from prolonged attempts to get it out than from its presence. I believe, also, that there is more danger of severe iritis from bruising of the iris during delivery of the lens through too small a section, than from debris remaining after delivery.

After delivery of the lens, if the iris does not replace itself, but remains prolapsed, I replace it with a small spatula, and drop two or three drops of a solution of eserine, one grain to the ounce, into the conjunctival sac, remove the speculum, and wait five or ten minutes before bandaging to inspect the eye and see if there is still a tendency to prolapse on the part of the iris; if so, I again replace with the spatula and give a hypodermic injection of one-eighth of a grain of morphia. After waiting a few moments I apply a dressing of absorbent cotton, and hold it in place with strips of adhesive plaster extending diagonally from forehead to cheek. This dressing does not become displaced as does the old-time flannel bandage, and is much pleasanter for the patient. After having tried other ways I prefer, particularly in old people, to have them in bed when I operate, and if not burdensome to them, I keep them in bed as quiet as possible for three or four days.

The hypodermic use of morphia, one-eighth grain every three hours until one-half grain is taken, I find very useful. If no pain is complained of, and the dressings remain dry, I do not examine the eye for two or three days. At this time I simply renew the dressings, if the eyelids appear normal; if, however, they are somewhat œdematous, I examine the wound.

In the Archives of Ophthalmology, 1894, No. 1, I published a paper, entitled, "Cataract; Morphine Hypodermically as a Means to Prevent Prolapse of the Iris in Simple Extraction," from which I quote:

"After the toilet of the lens, I drop a one-grain solution of eserine (salicylate of physostigmine) in the conjunctival sac, give a *hypodermic injection of one-quarter grain of morphia sulphate*, wait a few minutes, then let the patients go to bed, where I like to keep them from twenty-four hours to two days. Eight hours after the first hypodermic injection of morphia I give another, and the following morning a third. This generally keeps the pupil contracted *ad maximum* from thirty-six to forty-eight or more hours.

The morphine injection also relieves the discomfort immediately following the operation, produces tranquility, checks a cough if present, and does away with involuntary traction of the recti or orbicularis muscles. Given hypodermically, morphine *does not produce vomiting*. Whether the effect of morphine in producing contraction of the pupil be due to its sedative action upon the sympathetic nervous system, in consequence of which the capillary vessels of the iris become somewhat engorged and the pupil strongly contracted, or whether the contraction be due to a stimulation of the motor-oculi centres, I do not know, but that it seems to fulfill many indications and have a most happy effect I have demonstrated to my own satisfaction in the cases in which I have employed it."

Since the paper was written, over a year and a half ago, I have changed the dosage of morphia, dropping from one-fourth of a grain eight hours apart, to one-eighth grain every three hours till four doses are taken. I have never had reason to regret its use, and I can recommend it highly. *It does not cause vomiting. It does cause contraction of the pupil.*

While my deductions are based on considerably over one hundred cases, the following reports from the first one hundred:

Loss of vitreous occurred three times; in two cases no complications; in one case glaucoma destroyed the sight in spite of a large iridectomy. Prolapse of the iris occurred five times; the prolapse was removed the third day, and they all resulted well but one, the glaucoma case above spoken of. (See note.) Anterior synechia, possibly slight incarceration of iris, happened in four cases; healing of wound was smooth and results good, a slight drawing up of the pupil only being noticed; the movements of pupil were active and apparently not interfered with.

Six cases of posterior synechia, or adhesion of iris to capsule, were noted, but in none were the symptoms of any intensity, and I have no doubt more of these cases occurred but escaped notice. In only one case did total loss occur—the above mentioned glaucoma. It was one of my earlier cases, and I failed to note the glaucomatous tendency so easily observable in the other eye at present. One other case must be rated as a loss, although an iridectomy will no doubt give useful vision. It was the only case of the kind I have ever had, viz.: *acute mania* following the operation. It was a hospital case, and when I saw her twenty-four hours

after the operation I was told that the maniacal attack occurred one and one-half hours after the operation. She required several nurses to hold her in spite of morphia subcutaneously; the attack lasted a couple of hours, during which the dressings had been torn from the eye several times. I removed the dressings, opened the eye, and found *an opaque flap (upper half of cornea) flopping up and down between the lids, it being everted.* Of course the edges of the wound were infiltrated, and I expected sloughing of the cornea. The pupil was strongly contracted. I placed the cornea in its proper position, carefully applied to the edges of the wound of the cornea a solution of mercuric bichloride, one to one thousand, rubbing it in with a bit of cotton on a probe. The suppuration was checked, cornea healed nicely, anterior chamber re-established, but closure of pupil existed, which, as the perception of light is good, can be remedied by an iridectomy. A peculiar accident happened in one case. While introducing the cystitome forceps, without steadying the eye with fixation forceps, the patient rolled the eye suddenly upwards, and the forceps became entangled in the iris below the pupil, and before I could release them a rolling downward on the part of the patient, as sudden and unexpected as the first motion, caused a peripheral separation of the iris for one-third of its diameter. I excised the detached portion, and proceeded as if nothing had happened. Notwithstanding the rather free hemorrhage which followed the accident, a fair result, V=$\frac{1}{10}$, resulted. I have seen the same accident associated with the use of the ordinary cystitome.

The dressings are usually removed in ten days or two weeks from both eyes, the eye not operated on being uncovered the third or fourth day. Atropine may be used the third or fourth day. Sometimes I use it and many times not.

The visual acuteness is perhaps a trifle better than when an iridectomy is made, when the test is made indoors, but is decidedly better in a majority of cases when made out of doors in a bright light.

The complications above mentioned are as few in number, or fewer, than by the combined method, and I think, upon the whole, speak strongly in favor of the simple extraction. It must not be forgotten that all of the accidents above mentioned, except that in the acute mania case, may and do occur, I think, as frequently, if not more so, in the combined method as in the simple.

NOTE.—This case did well with central pupil until sixth day when, during sleep, probably from injury, the wound opened and prolapse occurred. I made a large iridectomy, and for several weeks patient did well, calling occasionally at my office, when I discovered the glaucomatous tendency. I told him to see me every day, but as he was seeing to walk around, he neglected to visit me for about two weeks, when I found + T 3, and sight disappearing. He became totally blind. The fellow eye now shows glaucomatous symptoms, and is, of course, a proper case for iridectomy.

EXTIRPATION OF THE RECTUM BY THE KRASKE METHOD.

By JOSEPH BACON, M.D., of Chicago,

Professor of Rectal Surgery in the Post Graduate Medical School of Chicago.

IT IS now almost ten years since this renowned German surgeon gave us this method for dealing with pelvic growths, especially with cancer of the rectum. Although the operation as he performed it was a major operation in the extreme, and the wound produced was an extensive one, such a one that would lead men to think the bounds of conservative surgery had been too much broadened, yet the operation became popular from its first discovery, because it permitted the surgeon to remove extensive growths of the rectum, by a comparatively open method, that had been considered inoperable cases by any method previously known. Aseptic surgery made its conception possible, and aseptic surgery in the extreme is necessary to make the operation a success. After complete anæsthesia the patient is placed upon the right side with the thighs flexed upon the abdomen. A median incision is now made through the soft parts down to the bone, beginning at the middle of the sacrum and extending down to the anus. The soft parts are now dissected off the lower end of the sacrum and the coccyx; the muscles and ligaments are dissected from the left side of the coccyx, and the two lower sacral vertebræ, next the right side of the coccyx, is freed from its muscular and ligamentous attachments and the bone removed; then with a chisel the whole or a part of the two lower sacral vertebræ are removed, when the middle and lower portion of the rectum is brought into view. A circular incision is now made with curved scissors, beginning at the lower angle of the wound, around the anus, and carried upward along the circumference of the growth until its upper border has been freed, when the healthy intestine above the growth is seized with a pair of broad forceps and the gut severed at a safe point above the upper limit of the growth. The lower end of the healthy intestine is now securely sutured to the skin at the upper angle of the sacral incision and the pelvic viscera carefully supported by packing the wound with iodoform gauze.

When the cancer or stricture of the rectum is limited to the anus and lower rectum it frequently happens that the diseased part can be removed without opening into the peritoneal cavity, and the dangers of the operation are reduced to a minimum. But, unfortunately, cancer of the rectum, like stricture, usually begins at a point where the levator ani muscles encircle the rectum, and when the growth is removed the greater part of the levator ani muscles and the recto-vesical fascia, together with the peritoneal covering, is so extensively removed that such a thing as re-suturing of the

peritoneum in such a manner as to close the peritoneal cavity is out of the question, and one is compelled to close the abdominal cavity by means of a gauze packing in the pelvic outlet, until after four or five days, when the peritoneal surface next the gauze will have thrown out a layer of lymph and granulation tissue, entirely closing off the peritoneal cavity from the external wound. It is very important to remember that the bony incision must be limited above at the lower border of the third sacral vertebræ, otherwise the third sacral nerve is wounded and serious bladder complications brought about by the paralysis of this nerve.

The limit of the operation upon the gut is very great. Cases are recorded where not only the anus and rectum, but even the sigmoid, has been removed successfully for extensive cancerous growth. I have but three cases to report from personal experience. The first one survived the operation for twenty-one months. The second one died from collapse forty-eight hours after the operation. The third was operated upon last April and is now in excellent health. This case was not cancer, but a tubular stricture, that involved the lower four inches of the rectum and the sphincters, and was complicated with fistulæ and incontinence.

The result of specific stricture and four previous operations for its cure, covering a period of several years: The patient had been anæsthetized twice and the stricture divulsed forcibly, the last time so thoroughly as to cause a pelvic peritonitis that confined her to her bed for months.

The stricture had been cut two times by the internal proctotomy method. All these operations had caused an extension of the cicatrix until it involved the sphincters, anus and four inches of the rectum, until any operation for its relief was out of the question, except by either colotomy or excision of the anus and rectum by the Kraske method. My experience with the two operations was in favor of the Kraske, as these patients have better control of the bowel movements after operation than those who have a colotomy. The curve of almost an acute angle when the end of the gut has been turned up into the sacral wound greatly facilitates continence. To this is added the natural condition of the sigmoid, which nominally retains the feces until the desire for defecation causes the abdominal muscles to assist the peristalsis of the sigmoid in expelling them.

I have been able to collect the statistics of ninety-nine cases of extirpation of the rectum for cancer by the Kraske method and seven cases of syphilitic strictures that have been removed by the same method. These cases have been reported by forty-four surgeons in Europe and America and comprise typical cases of extirpation. There are many hundred cases reported of partial extirpation and operations for removal of rectal growths and local cancer tumors that do not give exact records, and can not be classed as belonging to the list as designated by the title of the paper. In these ninety-nine cases the mortality was 21 per cent. for the cancer cases

and 100 per cent for the stricture cases. From this it is seen that by selecting cases for operation where the tumor was not extensive and where it was movable and uncomplicated by being adherent to adjacent organs, or where it was in the lower part of the rectum and could be removed without opening into the peritoneal cavity, the death rate could be reduced to a minimum.

Kraske reports two cases operated upon in December, 1884, both recovering. Then in 1885–6 and 1887 he reported eight cases with four deaths. A total of ten cases, four deaths, or a mortality of 40 per cent.

Hochenigg reports eighteen cases, two deaths, a mortality of 11— per cent.

Iverson, 1890 (Vienna Med. Press), reports seven cases by his modification of the Kraske, with five deaths, mortality of 71— per cent.

Now that we have the experience of surgeons for the past ten years to guide us, we should be able to form a pretty good idea of when the case demands an extirpation of the rectum and when to refuse to do the operation and perform instead a colotomy.

In cases past fifty years of age excision is extremely dangerous; these cases do not rally well from shock, and are apt to die from collapse.

Where the cancer has advanced beyond the rectal walls into the connective tissue, or onto neighboring organs, making the tumor immovable, the risks are very great and the results little if any improvement over colotomy.

The cases reported where a part of the prostate and bladder has been removed with the rectal growth and an urinary fistula resulting can not be considered as a success over colotomy.

Missouri Leads the Van.—The Missouri State Board of Health will not recognize the diplomas issued by any medical colleges located outside of the State, whether they be in America, Europe, Africa or Asia. Hereafter outside colleges will notice a falling off in the number of students from the great State of Missouri. The Board is honest and determined in its efforts to raise the standard of education among medical students. Outside schools are not recognized because they do not comply in toto with the exacting requirements of Missouri's Board.

Small Business.—The editor and proprietor of a monthly journal which claims to be a reflector of medical progress has had the nerve to ask several Departmental Editors of this journal to withdraw from the TRI-STATE. They withdrew—"aber nit."

PNEUMOCOCCUS ABSCESS OF THE OVARY, WITH REPORT OF THREE CASES.

By J. H. ETHERIDGE, M.D.,

Professor of Obstetrics and Gynecology, Rush Medical College, Chicago, Illinois; Gynecologist to the Presbyterian Hospital and the Polyclinic Hospital; Consulting Gynecologist to the St. Joseph's Hospital; Ex-President of the Chicago Gynecological Society; First Vice-President of the American Gynecological Society; Foundation Member of the International Association of Gynecologists and Obstetricians, etc.

SEVERAL different bacteria produce pus. They are called "pyogenic" or "pus organisms." The chief ones are the *staphylococcus aureus*, the *streptococcus pyogenes*, the *bacillus pyocyaneus*, the *bacillus pyogenes*, the *bacillus pyogenes fœtidus*, the *bacillus coli communis*, the *bacillus tuberculosis*, the *bacillus proteus*, the *staphylococcus epidermidis albus*, the *micrococcus lanceolatus*, or the *diplococcus pneumoniæ*. The most characteristic purulent inflammations are produced by the *staphylococcus* and the *streptococcus*. The staphylococcus is much more likely to produce circumscribed purulent inflammations or abscesses. The majority of abscesses of the ovary are the work of the staphylococcus. A few ovarian abscesses contain the colon bacillus. A few other pyogenic bacteria have been found in purulent collections in ovarian structures.

Up to date I can find no reported cases of ovarian abscesses produced by the *micrococcus lanceolatus*. It is my rare privilege this evening to report three cases of this affection. The files of the *Index Medicus* fail to reveal a single reported case.

The *micrococcus lanceolatus* bears many synonyms, such as *diplococcus pneumoniæ*, *micrococcus of sputum septicæmia*, *pneumococcus of Fraenkel and Weickselbaum*, *streptococcus lanceolatus Pasteuri*, *diplococcus lanceolatus*, *meningococcus*, *micrococcus pneumoniæ cruposæ*, *micrococcus Pasteuri*, *bacillus septicus sputigenus* vel *salivarius*.

This organism was first discovered in 1880 by Dr. Sternberg, the Surgeon-General of the United States Army, in his saliva. The bacteriological world unites in according its discovery to this gentleman. With characteristic modesty he names it the "*Micrococcus Pasteuri*," ignoring himself utterly. The writer thinks it should bear the name "*Micrococcus Sternbergi*." The micrococcus lanceolatus ranks as the third most frequent cause of human inflammations after the pyogenic staphylococci and streptococci.

Something of interest can be said of this coccus, especially as to where it may be found and as to what it may do. It is found upon free surfaces, like mucous membranes, and in the body, as the blood and solid organs. It is found in the cellular tissue of the neck, in the mediastinum, and even

in the conjunctiva. Occasionally it is found in the blood and in the juice of the spleen. It is said to pass into the fœtus in pregnant women. (Viti.)

The range of inflammatory processes produced is surprisingly large. In 1886 it was shown to be the sole specific cause of lobar pneumonia by Fraenkel and Weickselbaum. This coccus is found in the exudations in the cavum tympani and ethmoidal labyrinth. It is one of the causes of osteomyelitis and periostitis. It can cause acute ulcerative endocarditis. It is found in the buccal and naso-pharyngeal cavities of healthy persons. From these localities one can easily understand how it can invade the lungs and cerebral meninges. Foa and Bordoni regard it as the sole cause of cerebro-spinal meningitis. More recent researches, however, have modified this opinion somewhat, so that at present bacteriologists affirm that a small percentage of this malady is caused by other bacteria. It is a frequent cause of broncho-pneumonia. It can produce all kinds of inflammatory exudate—serous, sero-fibrinous, and purulent. It produces inflammations in any of the mucous and serous membranes. It may cause septicæmia. It is frequently the cause of arthritis. It produces abscesses in the parotid and thyroid glands, in the kidney, and in the liver. It is the most frequent cause of meta-pneumonic pleurisies, including empyema. (Welch.)

It may be mentioned as a curious bit of chemical information that Grimbert's experiments, recently prosecuted, show that this coccus determines fermentation in glucose, saccharose, lactose, maltose, raffinose, dextrin, galactose, arabinose, mannite, dulcite, glycerin, and starch. The products of this fermentation vary according to the nature of the sugar employed, being ethyl alcohol, acetic acid, succinic acid, and lævorotory lactic acid. (*Proc. Paris Acad. Sciences*, November 18, 1895.)

Serum therapy from immunized animals, employed in pneumonia in human beings, has thus far proven negative. Rabbits may be made completely immune by repeated injections of diluted cultures of progressively increasing virulence, so that 30 c. c. of cultures of full virulence are borne without any striking disturbance. It is a curious fact that the serum from immunized rabbits can cure pneumococcus infection in rabbits and mice. (Emmerich.)

Thus it is seen that this organism is of the highest importance. Its range of pathological manifestations is very large. To its already widely known fields of invasion in the human body is herewith added another one, hitherto unrecorded, so far as the writer's knowledge extends.

CASE I.—I am indebted to Dr. H. B. Stehman for the privilege of examining the pus in this case:

Mrs. C., aged twenty-eight years, never strong, never had pneumonia, married six years, sterile. Became acutely ill March 23, 1894, with great

pain and tenderness in the right iliac fossa; fever and vomiting. Was crippled and ill from that date till her operation, August 21, 1894, during which period of time she had lost thirty-two pounds of flesh and experienced menstrual irregularities for the first time in her life.

Examination revealed an inextricable matting together of her pelvic organs. Nothing definite beyond this condition of affairs could be satisfactorily outlined.

The operation was performed August 21, 1894. Upon opening the abdomen the right ovary was found much enlarged and attached to the omentum, intestines, and uterus. In removing the ovary the abscess contained in it was ruptured, and about four drachms of pus escaped into the peritoneal cavity. This pus was subjected to careful bacteriological examination, and the only micro-organism found was the *micrococcus lanceolatus*.

Description of the specimen. The surrounding adhesions were uniformly distributed over the surface of the ovary, which was occupied by a mono-celled abscess about two inches in diameter. The pus that it contained was greenish-yellow, thick, and very tenacious. The pyogenic wall was lined with a ragged, thick, yellowish, fibrinous material. No communication existed between the abscess cavity and the lumen of the Fallopian tube, which was adherent to the ovary.

Bacteriological examination. Cover-slip preparations from the pus, stained with aniline water solution of gentian violet, showed very numerous lance-shaped cocci arranged in single pairs or short chains. Preparations treated by Welch's method (glacial acetic acid, stained with aniline water solution of gentian violet, and washed with 4 per cent solution of sodium chloride) showed the cocci to be surrounded by well-developed capsules. They were stained by Gram's method.

Cultures. On faintly alkaline glycerin agar-agar (5 per cent.) at 37° C., after twenty-four hours, cultures from the pus gave a pure culture consisting of a fine white growth. There was no growth at room temperature. Cover-slip preparations from the pus showed cocci, distinctly lance-shaped, arranged in single pairs or short chains and staining by Gram's method. No capsules in the cultures. A rabbit was inoculated subcutaneously with one-half c.c. of the pus from the abscess. It was sick for five or six days, and then improved. On the ninth day after inoculation it was killed, and a small abscess found in the abdominal wall at the point of the inoculation. Cover-slip preparations and cultures from the pus in the abscess gave results identical with those in connection with the ovarian abscess.

Sections of the ovary, hardened in alcohol, and stained by Gram's method, showed a few diplococci in the wall of the abscess. Sections stained with hæmatoxylin and eosin showed the wall of the abscess to consist of a dense fibrous external portion, the inner portion being densely packed with small round cells.

CASE II.—Mrs. M., aged twenty-five years, married seven years, had borne three children, of whom the youngest was eighteen months old. She had had two miscarriages, in May and November, 1894. She made a poor recovery from the miscarriage in May, and dates all of her trouble from that time. Her chief complaint was pain in the left iliac region. She was never free from it until after laparotomy. Between May, 1894, and May 1895, she says she had two abscesses break into the rectum. She gives no history of pulmonary disease in the past.

Examination, May 21, 1895, showed a perfectly anchylosed uterus with a small spot of fluctuation on the left side and excessive tenderness throughout the whole pelvis.

Operation, May 22, 1895. The pelvis contained numberless adhesions between the omentum, intestines, uterus, tubes, ovaries, and bladder. The right ovary was cystically degenerated, right salpingitis existed, and the left ovary, as large as a pullet's egg, and containing an abscess, was ruptured.

Description of specimen. Ruptured adhesions existed throughout the entire periphery of the ovary. The tube was firmly bound to the ovary. Its fimbriated extremity was patent, its lumen was not dilated, but its walls were slightly thickened. The folds of its mucous membrane appeared normal. The wall beyond the mucous membrane showed only a few areas of small cell infiltration. Upon separating it from the ovary no communication between the abscess cavity and its lumen was detectable. The ovary contained a single-celled abscess, one and one sixteenth of an inch thick on one side, with a firm, dense, outer coat, and one fourth inch thick on the other side, with firm, dense tissue making up most of its thickness. The inner surface was covered with soft, fibrinous exudate, which upon removal, revealed small hemorrhagic areas scattered throughout the inner layer of the wall.

Bacteriological examination. Cover-slip preparations from the pus stained with aniline water solution of gentian violet showed very numerous lance-shaped cocci, arranged in single pairs and short chains of from two to four pairs. Preparations treated by Welch's method demonstrated well-developed capsules about the cocci. They stained by Gram's method. No other bacteria could be found in the cover-slip preparations.

Cultures made from the pus immediately after the operation on faintly alkaline glycerin agar-agar (5 per cent.), after twenty-four hours at 37°C. gave a growth of fine white colonies. This proved to be a pure culture of lance-shaped cocci arranged in single pairs or short chains. They stained by the analine water solution of genitan violet, and were also stained by Gram's method. No capsules were present in the cultures. A rabbit was inoculated subcutaneously with one-half c. c. of a twenty-four hours' old glycerin bouillon culture. It was sick for twenty-four hours, and recovered.

In sections of the abscess wall hardened in alcohol and stained by Weigert's method, abundant fibrin was seen on the inner side of the section, with a few diplococci scattered through it. Sections stained with hæmatoxylin and eosin showed the entire wall to be very vascular, the vessels throughout being large and distended with blood. No Graafian follicles were seen. The outer two-thirds of the section consisted of mature fibrous tissue with some round-cell infiltration in areas. The inner third has the general appearance of very vascular granulation tissue with areas of hemorrhage. It contains very numerous distended vessels. There are many hemorrhagic areas, in some the blood cells being well preserved, in others being replaced largely by *debris* and pigment. Throughout this layer is an abundant small cell infiltration. In a few places are seen large uninuclear polygonal cells, some of them appearing uniformly pale yellow, with faintly staining nuclei.

CASE III.—Mrs. C., aged fifty-three years, still menstruating, has complained of pain in her left iliac region since 1889. A satisfactory history of this case of ovarian abscess could not be obtained. At the time of her operation she was experiencing menstrual irregularities in the way of menorrhagias. Has not been pregnant for twenty-six years. Never had any pulmonary disease.

Examination revealed an immobile uterus and a mass in the left iliac region, tender and fixed, pushing the uterus over into the right side of the pelvis.

Operation, May 22, 1895. Upon opening the abdomen the left ovary containing an abscess was removed. A sub-peritoneal pedunculated fibroid as large as an English hickory-nut was removed from between the folds of the right broad ligament. Two hysterorrhaphy stitches were used and the patient put to bed in good condition.

Her recovery was entirely satisfactory, and she left the hospital in four weeks.

Examination of the specimen. There were abundant general torn adhesions over the surface of the ovary and the tube. The tube was connected to the ovary by bands of adhesions, but was not intimately attached to it. Its abdominal end was patent, the tube was not dilated, contained no pus, and presented only signs of chronic catarrh. No connection between the lumen of the tube and the abscess cavity could be made out. In the ovary was a single abscess one inch in diameter, containing two or three drachms of thick, yellow, very viscid pus. The abscess was surrounded by a wall one-fourth of an inch thick on all sides, externally being dense and fibrous, and internally presenting a lining of soft, friable material. The opposite tube and ovary were normal.

Bacteriological examination. Cover-slip preparations from the pus stained with aniline water gentian violet solution showed abundant lance-shaped cocci arranged in single pairs or short chains. Preparations treated

by Welch's method showed them to be surrounded by fairly well-developed capsules. They were stained by Gram's method. No other bacteria were found.

Cultures from the pus on neutral glycerin agar-agar remained sterile. Those made on Lœffler's blood-serum mixture after twenty-four hours at 37° C. gave a delicate white growth, which proved to be a pure culture of cocci arranged in single pairs or short chains, staining by Gram's method. There were no capsules in the cultures. No growth occurred at room temperature. No animal inoculations were made.

Sections of the abscess wall, hardened in alcohol and stained by Gram's method, revealed abundant diplococci, mostly in single pairs or short chains, near the inner surface, and only a few deeper in the sections. Sections stained with hæmatoxylin and eosin were as follows: The outer two-thirds of the section were made up of irregularly arranged fibrous tissue. No Graafian follicles were seen. The inner third showed very dense infiltration with multinuclear leucocytes, with areas of marked nuclear fragmentation and some of entire necrosis. The vessels were few and not prominent, and there were no areas of hemorrhage. In the inner portion of the section were larger, unicellular polygonal cells, either single or in groups.

REMARKS. Two conditions are marked in these three cases. The first is the severe inflammatory invasion of the peritoneum as shown by the abundant adhesions. The second is in the macroscopic character of the pus, which was thick and very tenacious, resembling that seen in cases of empyema following lobar pneumonia caused by the *micrococcus lanceolatus*.

In each case the pus was literally loaded with cocci, while the sections of the abscess walls showed only a very few. The large polygonal cells seen in the sections correspond to those represented in the drawings by Langer[8], and considered by him as "luteal" cells.

Zweifel[17], Frommel[5], and Witte[16] report bacteriological examinations of 376 cases of pyosalpinx. In all of this large number of cases there were only seven instances where the *micrococcus lanceolatus* was found. In these cases there were abdominal pains, fever with chills and nausea. In only one case (Frommel[5]) was there antecedent lung affection, which was probably tubercular. In five of these cases the coccus existed in pure cultures, and in two it was associated with the staphylococcus and different bacilli. In all of them there were recent and old adhesions binding the tube to adjacent structures. The anamnesis is like that of puerperal sepsis and gonorrhœal salpingitis.

Martin[3] suggests a possible diagnosis of pelvic abscess from the micrococcus lanceolatus by excluding, in the antecedent history, labor at term or interrupted, and gonorrhœal infection, and by the evident presence of severe perimetritis. It may be added also that he cautions particularly

against infecting the peritoneum and abdominal wall with such pus during the operation, because of two fatal cases reported by Frommel and Witte.

Two additional points of interest in this form of abscess arrest our attention, viz.: first, the route by which the pneumococcus reached the ovary; and, second, the point of structure of the ovary, which is its primary localization. The solution of these two questions is uncertain, because they may differ in different cases.

First, the route of invasion may be by (*a*) the external genital passages; (*b*) the intestines; (*c*) the general circulation.

a. Weickselbaum[14] has observed the pneumococcus as a cause of endometritis and salpingitis. It is found in the diseased human vagina, never in the normal vagina, because it is not possible for pathogenic-bacteria to exist in a normal acid vaginal secretion (Doederlein[4].) Thus it will be seen that in the condition of the vagina altered by local disease processes the pneumococcus can reach the ovary from this tract by traversing the uterus and Fallopian tubes.

Poirier[11] has shown that the lymphatic vessels of the uterus connect with those of the tube and ovary near the ovary, thus supplying a possible route to the ovary along which infection can pass from the vagina.

b. Tubercular invasion of the tubes has been observed in women with intestinal tuberculosis (Jans[7]). Similarly, the pneumococcus which is almost constantly found in the human intestine (Stoecklin[13]) may escape from the intestine, where lesions of its mucous membrane exist, and gravitate to the pelvis, and thus reach the ovary. Illustrative of this point, Pinner[10] introduced dust into the peritoneal cavity of dogs and rabbits, and it soon made its appearance in the tubes, uterus and vagina. Reaching the pelvis in this manner, at the time of the rupture of a Graafian follicle, it could easily find a favorable localization in the cortex of the ovary. Confirmatory of this fact, that the pneumococcus invades the peritoneal cavity from the intestines, Barbacci[1] states that he found the *micrococcus lanceolatus* in 60 per cent. of cases of perforative peritonitis, and Wilson[15] found it in the exudate of appendicitis. Grawitz[6] has shown experimentally that a considerable number of pyogenic bacteria may be introduced into the peritoneal cavity without causing peritonitis, provided the peritoneum be healthy and the wound not infected. Therefore, it can be seen that it is possible for the pneumococcus escaping from the intestine into a healthy peritoneal cavity to gravitate to the pelvis and infect an ovary presenting a suitable point of invasion, like a ruptured Graafian follicle as the seat of primary invasion of the pyogenic bacterium, because the resultant abscess wall contained large luteal cells and because it was lined with a yellowish, crumbling, necrotic mass of tissue. Indeed, Corvill[3] and Terillon have described pus accumulations of considerable size in Graafian fol-

licles. Reinstein[12] and Coe[2] believe that ovarian abscesses may begin as an infection of Graafian follicles.

c. The route of invasion by the circulation. Transmission of the germs of disease by this means is a well-known fact. By it any organ or tissue can be invaded. Capillary infarcts occur at any point in the capillary system, and when the circumstances are favorable the development of this secondary infection progresses in accordance with the natural history of the germs contained in the thrombic mass. An ovarian abscess, developing from this cause, will naturally be expected to have its seat in the parenchyma, and not in the cortex of the organ. Therefore, the structure of the abscess wall would be likely to determine whether an ovarian abscess arose from the Graafian follicle, which is seated partially within the cortex of the ovary, or from the parenchyma of this organ. If the point of infection was a Graafian follicle the pyogenic wall would contain cells characteristic of that follicle, *i. e.*, luteal cells. If it arose from the parenchyma, there would be an absence of such cell.

In these three abscesses we find the abscess walls containing these peculiar bodies in the second and third cases, but not in the first one. If, therefore, the premises be correct concerning the histological elements of the abscess wall in these cases, the deduction that the first case of infection of the ovary must have been through the general circulation, and that of the second and third cases through ruptured Graafian follicles, would seem to be tenable.

CHICAGO, SEPTEMBER 23, 1895.

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Pictures Come High.—The *Iowa Medical Journal* publishes biographical sketches of the eminent physicians of Des Moines, at the rate of $25 for picture and extra flattering sketch.

THE CHANCRE AND ITS TREATMENT.

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AMONG the most interesting among medical studies, syphilology holds a deserved pre-eminence. Syphilis is so universally disseminated, and it exhibits itself in so many forms, that it never ceases to have a most keen interest for the student of symptomatology and pathology. The advances made in the study of the subject during the past half century are truly marvellous, and reflect not only credit but honor upon the magistral minds which have devoted their energies to a complete elucidation of the subject. After having laid down the broad lines of the subject more special, and particular lines have been taken up, and to-day specialization is holding more or less complete sway, thereby leading to a more complete and profound knowledge of the subject. I do not propose to do more than roughly sketch an outline in this paper, and endeavor to briefly describe the chancre, with some few suggestions of those methods of treatment which I have found to give the best results, so far as a rapid and satisfactory recovery are concerned. To completely elaborate the subject would require space sufficient to fill a volume, and, on that account, only a few of the leading points can be compressed within the limits of a reasonably short article.

The chancre, primary helkosis, primary syphilis, or, as it is erroneously called by some, syphilitic chancre, is the primary expression of a general infection due to an inoculation from syphilitic virus. The question as to whether the chancre is a purely local disease when it makes its appearance, I have already discussed elsewhere,[1] and so will not take it into consideration here. Suffice it to say that the point has been established beyond any reasonable doubt. What I propose to speak of more particularly is the diagnosis of the chancre, the different varieties observed, and the proper treatment to follow. We find that in making a diagnosis, many points are to be remembered, and more particularly not to confound the lesion with chancroid, which is the trouble said to resemble it most closely. As the chancroid rarely, if ever, occurs upon any other portion but the genitalia, its location on any part need cause no confusion, but the general characteristics of the chancre which will be given are applicable to it wherever found, with some possible exceptions, which will be alluded to later on. The principal points of difference may be tabulated as follows:[2]

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[1]Double chancre à distance. *St. Louis Med. and Surg. Jour.*, July, 1892.

[2]See Bumstead and Taylor on Venereal Diseases. In his last edition Taylor does not give this tabulation.

CHANCRE.	CHANCROID.
1. Due to contagion from a syphilitic secretion.	1. Due to infection from a chancroid or chancroidal bubo or lymphitis.
2. Incubation from two to three weeks.	2. Within a week.
3. Generally single; if multiple, all of same age.	3. Often multiple and of different ages.
4. Superficial flat, elevated, or "scooped out."	4. Deep, excavated, and "punched out."
5. Sloping, flat or rounded adherent edges.	5. Abrupt, sharply cut, eroded, undermined.
6. Red, livid or copper-colored floor, smooth.	6. Whitish, grayish, pultaceous, "worm-eaten."
7. Secretion is scanty and serous.	7. Abundant and purulent; auto-inoculable.
8. Induration of base.	8. Infiltration more or less marked.
9. No pain, or very little.	9. Painful.
10. Phagedena, rare and limited.	10. Often takes on phagedenic action.
11. Generally occurs but once.	11. May occur an indefinite number of times.
12. Induration of lymphatics common.	12. Inflammation of lymphatics rare.
13. Lymphatic glands indurated; suppuration rare; multiple bubo.	13. When reaction occurs it is inflammatory and often suppurates; single bubo.
14. Peculiar to human race.	14. Transmissible to lower animals.
15. A constitutional disease.	15. Always a local affection.

These constitute the principal points of difference, but it must be borne in mind that there are different degrees of induration, and the distinction must always be remembered between it and infiltration. It is not only the chancre proper which is indurated by a narrow zone surrounding it is also implicated. The chancre may begin as an erosion, a papule, a pustule, or rarely a vesicle. The induration may be cartilaginous, parchment-like or barely perceptible. To properly appreciate this sign delicacy of manipulation is absolutely essential. The location of the chancre governs the variation in intensity of induration to a considerable degree, and on the mons veneris a chancre may occur which, to all intents and purposes, does not present any induration whatever. Whilst many lay great stress upon the pathognomonic value of a "hard" sore, it may be very deceptive to even an experienced investigator, and should not be depended upon solely as an infallible guide. A case in point may serve to illustrate this better, and also show the care which should be taken against falling into a fatal error.

The following is a case illustrative of the possibility of error which may creep in a case, unless great care and discrimination be employed. And it may be safely laid down as a rule, that until as exact a method of making a diagnosis of syphilis as we already possess for tuberculosis is found, no one, however expert he may be, or however much experience he may possess, can be justified in making the claim of total exemption from or liability to err in pronouncing positively upon the nature of a suspected chancre. The case I desire to mention occurred in a young man who stated that he had a "chancre" upon his prepuce. It appeared about three

weeks after the suspicious intercourse. The lesion was situated on the internal surface of the upper part of the prepuce, and was about the size of the small finger-nail. It had a roundish appearance, and had a distinctly

FIG. 1. Dry-Patch Form of Chancre of Penis

cartilaginous feel. It could be freely moved, and its boundaries could be distinctly made out. Its surface was glazed, and no secretion could be made out. No particular pain was felt in connection with. The inguinal adenitis was obscure, and far from classical. The glands could hardly

be made out, and this led me to entertain a serious doubt as to its being a chancre. The headache which existed was not the peculiar cephalalgia typical of syphilis. I had an opportunity of practicing confrontation, and the woman did not present a single symptom of syphilis. Under simple astringent treatment, the "chancre" diappeared in about two weeks, and not a single sign of syphilis has shown itself since that time, some four years ago. About a month ago when I last saw him, he was still free of all hectic symptoms. Now, I will venture to assert that almost any syphilologist examining this case would have pronounced it a chancre, unless his suspicions had been awakened like mine were. The eventual course of the lesion showed the induration to be false, and the lesion was a pseudo-chancre. This is the true pseudo-chancre, and more deserving of that

FIG. 2. Fungating Chancre of the Thumb.

appellation than the chancroid which is hardly deserving of that name when we consider that the distinctive signs are so distinct and clear-cut.

The different varieties of chancre are numerous and varied, although they nearly all possess the general characteristic features which have been given. Among the principal varieties observed upon the penis are the following: The chancrous erosion of which the herpetiform, parchment-like, and indurated nodule are sub-varieties; the silvery spot, which is also known as the desquamating form; the dry papule or patch which is quite common; the umbilicated papule, nodular papule, or follicular form, which is rare; the purple necrotic papule; the ecthymatous chancre; the parchment chancre; the annular chancre; and the diphtheritic chancre, an extremely rare form of lesion. At the vulva, the same varieties are to be found, and the vagina is the seat of the encrusted chancre, whereas at the

posterior commissure may be occasionally seen the *chancre en cocarde*. The fingers are attacked by different varieties, which are somewhat dissimilar to any which have been mentioned, such as the fungating chancre, the excoriated or exulcerated nodule, the panaritium-like chancre, etc. From this rather summary enumeration, it will be readily perceived that the study of the clinical characteristics alone would form a respectably sized monograph, and would occupy much more space than I can devote to it here. It is on account of this reason that the pathological anatomy of this lesion will not be entered upon. Suffice it to say that it consists essentially of a round cell infiltration of the tissues subjacent to the lesion, and projecting somewhat beyond it, forming thus a narrow peripheral zone. The greater or less amount of infiltration produces the different intensity in induration. This peculiar cellular infiltration is also responsible for the induration of the lymphatic vessels and glands which is encountered as an accompaniment of the chancre.

So far as the location of the chancre is concerned, we may divide it into two great divisions—genital and extra-genital. The chancre is located at the point where infection occurred, and may be either of venereal or non-venereal origin. In regard to the latter but little can be said in addition to what Dr. L. D. Buckley has given us in his classical work on the subject.[1] The chancre may occur at any point on the skin, at the openings of mucous outlets, and on accessible portions of mucous membranes. To give a mere list of all the localities where the chancre has been observed would require more space than the limits of this article would justify. In Figure 1 is given an example of that form of chancre known as the dry patch, occurring on the sheath of the penis, a rather unusual location, in view of the fact that when that organ is affected it is the prepuce, glans or urethra, which is usually implicated. The fungating form of chancre is shown in Figure 2, which represents a case that occurred in a waiter employed in a very popular restaurant. The manner in which the infection occurred was unknown to the patient, and it would certainly be useless to endeavor to make any surmises on the subject. An example of the encrusted form of chancre occurring upon the lower lip is shown in Figures 3 and 4. In the former figure the large size of the lesion is well exemplified and its thickness may be judged by the profile view given in the other picture of the same patient. These few examples will certainly suffice to show how different are the appearances presented by the primary symptom of syphilis and how carefully examined each case should be before any positive diagnosis is attempted. Some modifications which are secondary and which have not been mentioned are the serpiginous, the phagedenic and the gangrenous chancre. We also occasionally encounter the relapsing chancre (chancre redux), which may lead to error if a case be not carefully examined, or may be mistaken for a reinfection.

[1] Syphilis Insontium. 1894.

So far as the treatment of the chancre is concerned it should be purely local. The attempt to abort a case of syphilis by general medication administered as soon as the chancre appears is simply a delusion. The best that can be done, according to the warmest advocates of the plan, is either to postpone the appearance of general symptoms or to render them less severe, this latter being a proposition which has never been satisfactorily proven. So far as excision of the chancre is concerned, it has proven a complete failure in my hands as an abortive measure, and the results of others have only served to confirm my own deductions. I will not enter into this question, as I have already sufficiently considered it on a former occasion[1]

FIG. 3. Encrusted Chancre of Lip. Front View.

(1892). For the present it will be sufficient to speak of the local treatment of the chancre.

So far as the local treatment is concerned, the general rules of procedure have always had as their prime objects, cleanliness, suppression of secretion or suppuration, healing, and as rapid a return to the normal as possible. In the case of a simple lesion the use of a $\frac{1}{1000}$ bichloride solution followed by a dusting powder, such as calomel, has been a favorite method and quite a good one too. On the other hand, mercurial plaster or emplastum de Vigo cum mercurio has its advocates to this day. In the ulcerating, herpetiform and fungating forms the same methods have been

[1] *Loc. sit.*

proposed and in those cases in which the chancre is located upon a mucous membrane or in such a cavity, slight cauterization is looked upon as of benefit. Those who are ultra in their ideas, use an ordinary carbolized ointment or iodoform powder in the treatment of these simple forms. In the serpiginous, gangrenous, deeply ulcerating, and other destructive forms, cauterization is properly called for. The subsequent dressings are as given above. Dr. J. Willard Parker Worster speaks highly[1] of the use of a spray of peroxide of hydrogen under a pressure of sixty pounds, using as a subsequent dressing iodol powder. In this connection it may be well to state that whilst calomel is a favorite application, iodol, europhen, aristol, and a large number of other remedies have been claimed to possess most valuable properties for this purpose. However, subnitrate of bismuth, oxide of zinc, starch, and other inert powders are reported to act in a manner just as efficient. One point upon which there seems to be a general consensus of opinion is that mechanical protection to the chancre is advantageous, and this may be obtained by the interposition of a piece of cotton or some equally soft material, which thus prevents friction or any other similar mechanical irritation.

FIG. 4. Encrusted Chancre of Lip. Side View.

In conclusion I desire to detail the methods which I have followed with success, and from which I have had no reason to deviate in the treatment of a comparatively large number of cases. Whilst I do not desire to insist upon my methods being the only good ones, they are so simple in character and of such easy application that I may be pardoned for speaking of them in connection with the subject. In those forms of chancre characterized by a macule, papule, dry scaling papule, abrasion or excoriation, the lesion should be dressed twice daily. It is first cleansed with a $\frac{1}{500}$ solution of bichloride and the following ointment then applied:

℞ Hydrarg. oleat 5%
Ung. hydrarg. ciner., ... aa ℥ss
M.

1 Jour. Cut. & Genito-Ur. Dis., Feb., 1895.

A very thin layer of absorbent cotton is then interposed between the chancre and the opposing surface, whether it be integument or clothing. If the lesion be located in the cavity of the mouth, vagina, or rectum the bichloride solution is first thoroughly applied and nothing further is done, except in the latter two, where the ointment may be applied. Should the chancre show a destructive tendency, cauterization is to be practiced *largo manu*. No middle course should be adopted and no hesitation shown. One thorough cauterization will usually suffice, but it should be efficient. For this purpose I employ either nitric acid, C. P., or pyrozone solution 25 per cent. The dressing is as indicated above. I have never found it necessary to resort to complicated methods and have always had the satisfaction of not only seeing the chancre heal rapidly, but the induration reduces to such a degree and in so short a time that there can exist no doubt of the local mercurial application producing this result.

SOCIETY REPORTS.

TRI-STATE MEDICAL SOCIETY OF IOWA, ILLINOIS, AND MISSOURI.

Fourth Annual Meeting, held in Chicago, April 7, 8, and 9, 1896.

The society met at the Great Northern Hotel under the presidency of Dr. R. H. Babcock, of Chicago.

Antitoxin and Serum Therapy.—After the transaction of miscellaneous business the President's address was read. He selected for his subject antitoxin or serum therapy. He traced the efforts that had been made to combat tuberculosis by means of serum therapy, telling of the first discovery that certain animals possess comparative immunity from the disease. Detailing several experiments, he said a more intelligent use of tuberculin showed that the early failures were due to its injudicious employment in too large doses. He next passed on to a personal trial of the remedy, citing the case of a young woman of twenty-one years, whose sister had died of pulmonary tuberculosis and in whom well-marked signs of inactive disease existed in the right apex. The administration of antiphthisin for two months was followed by a gratifying disappearance of the malaise, nervousness, and occasional slight cough. He also treated a male, aged thirty-four, with satisfactory results.

Dr. von Ruck had furnished the speaker with advanced sheets of a report, soon to be published, of one hundred and eighty-two cases of consumption in all stages treated with tuberculocidin and antiphthisin, in which recovery was obtained in thirty-two per cent. of the cases, arrest or marked improvement in thirty per cent., and some improvement in sixteen per cent.

Special Education as a Means of Treatment in Chronic Neurasthenia.—By DR. J. F. PERCY, of Galesburg, Ill. Neurasthenia, he said, is considered

the result of an imperfectly used and therefore improperly developed nerve organization. In this city there is an ably conducted kindergarten normal school, and when he has a neurasthenic woman he sends her, if possible, to this school to take the normal course there. The result has been that every case so treated has recovered. In one case cited the right ovary was buried in a mass of exudate beneath the uterus. Electricity and pelvic massage were resorted to for over a year with but little, if any, appreciable result. All treatment was stopped and the woman sent to take a kindergarten normal course, with the result that she is well to-day, so far as any morbid mental phenomena are concerned.

Cancer of the Uterus Complicated by Pregnancy, with Indications for Operation was the title of a paper read by DR. A. H. CORDIER, of Kansas City, Mo., in which the author reported a sucessful case of vaginal hysterectomy in a woman thirty-two years of age, the uterus being three months pregnant.

In twenty-seven cases tabulated by Dr. Vander Veer, of Albany, five patients had died during labor undelivered, nine had died during the puerperal period, in three cases the results were not mentioned, and ten had recovered, the mortality to mothers being sixty per cent. Another author had reported thirty-four cases of cancer of the uterus complicated by pregnancy, with a mortality of fifty-two per cent.

The author drew the following deductions: (1) Cancer of the cervix uteri, if left without surgical interference, always kills. (2) The disease in most instances is primarily a local process. (3) Early hysterectomy will cure a considerable percentage of these cases. (4) The microscope, while a great diagnostic aid, is not infallible in its findings. (5) The experienced surgeon is warranted in resorting to hysterectomy, even in doubtful cases. (6) All malignant pregnant uteri should be removed when seen, before the disease has advanced beyond the period of a probable cure.

DR. RYAN, of Galesburg, cited an uncomplicated case of cancer of the cervix which occurred in the hands of another practitioner. The cervix was amputated; the patient was four months advanced in pregnancy. Following the operation she went to full term and the child was delivered without difficulty.

DR. L. H. DUNNING, of Indianapolis, said that if he should find hardening of the cervix and the development of a neoplasm with the presence of discharges sanguineous or offensive in character, even though the microscope failed to reveal positively the existence of malignant disease, he should pursue the course recommended by the essayist.

DR. RUFUS B. HALL, of Cincinnati, thought the whole matter hinged upon diagnosis. When the diagnosis was accurately made it was perfectly clear what should be done. He favored total extirpation, believing that high amputation should only be performed in exceptional cases.

DR. D. C. BROCKMAN, of Ottumwa, Ia., emphasized the importance of early diagnosis. The general practitioner does not understand the importance of irregular hemorrhages occurring in women approaching the menopause, and prescribes a placebo when a radical operation is needed.

[CONTINUED.]

TRI-STATE MEDICAL JOURNAL.

EDITORIAL DEPARTMENT.

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EMINENT SAINT LOUIS ADVERTISERS.

There was a time when Heine Marks and Isaac Solomon Love were considered the smoothest advertisers in the Saint Louis profession, but at the present day disinterested parties award the palm to H. Tuholske and Ludwig Bremer. The GREAT surgeon and the GREAT neurologist appear to immense advantage in recent issues of the daily papers. It is not enough that the GREATNESS of these men should be passed around by word of mouth; the medical journals do not afford sufficient latitude to sound their praises and tell of their WONDERFUL achievements; to herald their worth from the housetops fails to fill the bill (and pocket-book); only a great daily newspaper which is read by thousands can satiate their vitiated appetites and colossal vanity.

And these men are ETHICAL members of the Saint Louis Medical Society!

THE CINCINNATI SANITARIUM.

We have received the annual report of this excellent institution which has been in successful operation for twenty-three years. The Sanitarium has been thoroughly rebuilt, enlarged and refurnished, and has facilities second to none in this country for the care of those afflicted with mental and nervous disorders, the opium and morphine habits, inebriety, etc.

MISSOURI STATE MEDICAL ASSOCIATION.

The State Society will meet at Sedalia, May 19, 20 and 21. A number of prominent members of the profession have been invited from Chicago and New York City. Great interest is being aroused all over the State, and present indications show that the coming meeting will be an important one in every respect. Since the Sedalianites determined to capture the State House they have given great attention to all visitors, and no doubt will show the usual courtesies to the doctors.

AN ORDINANCE WHICH IS LOADED.

The following has become a law:

(18,374)

An Ordinance providing for a Hospital Commission, and prescribing the powers and duties thereof.

Be it ordained by the Municipal Assembly of the City of St. Louis, as follows:

Section. 1. A Hospital Commission is hereby created, to be composed of the Mayor, the Health Commissioner, a member of the Council, to be appointed by the President, thereof, a member of the House of Delegates, to be appointed by the Speaker thereof, two physicians and one member of the Board of Commissioners on Charitable Institutions, the last three to be appointed by the Mayor. Said Commission shall continue for the term of four years from the date of the approval of this ordinance. All vacancies by death, resignation or otherwise shall be filled by a majority vote of the members of said Commission, at a meeting, of which notice shall have been given five days prior thereto. No member of this Commission shall receive any compensation whatever for his services as such. Said Commission shall have the power to adopt rules for its own government and regulation to elect its own officers and committees for such time and with such powers as may be prescribed by its rules. Said Commission is hereby empowered to call upon the heads of the various city departments to detail such assistance as may be required by the Commission in the preparation of its report.

Sec. 2. Said commission is hereby charged with the duty of formulating a scheme or plan for the construction or re-construction and general location, distribution and management of the hospitals belonging to the city for the purpose of producing a complete, harmonious system for said institutions, and designate the direction of needed expenditures in construction or remodeling of buildings. Said commission shall make reports from time to time, to be forwarded through the Mayor to the Municipal Assembly, and when they deem necessary they shall prepare and submit to the Assembly ordinances embracing what legislation is needed.

Approved March 14, 1896.

Doctors Mudd and Fischel have been working for months on this ordinance. They are not working for fun. They are after big game and if they succeed in getting the Honorable Cyrus P. Walbridge to appoint themselves or their friends on the Hospital Commission, look out for developments.

CHICAGO MEETING OF THE TRI-STATE.

The recent meeting of the Tri-State Medical Society, at Chicago, will long be remembered. Doctor Robert H. Babcock, late President, and Doctors Hugh T. Patrick, Wm. Baum, and W. H. Wilder, Committee of Arrangements, are entitled to great praise for the successful result of their labors. The attendance was large, over fifty new members having been admitted. Clinics were held by Doctors Murphy, Etheridge, Henrotin and Senn. Many important papers were read and discussed. The Public Address by Dr. Joseph Mathews, of Louisville, was filled with good advice

and was delivered in the happiest manner. Among the notable social functions were receptions at the residences of Doctors E. Fletcher Ingalls and E. C. Dudley; a luncheon to the Society by Doctor Fernand Henrotin; a dinner given by Doctor Babcock to Doctors Nancrede, Cordier, Walker, Murphy, Allport, Dudley, Ball, Cale, Brown, Brockman, Reynolds and Mathews; "a smoker" by Mr. George S. Davis of Detroit, at the Union League Club, under the direction of the whole-souled and ever-to-be-remembered Doctor Whitmore; and several of less size but none the less enjoyable.

The Iowa profession was represented by Doctors Sisson, Kempker and Dorsey of Keokuk, Eschbach of Albia, La Force and Brockman of Ottumwa, Chase of Waterloo, Seibert of Reinbeck, Shuell of Parnell, Wright of New Hampton, and several others. The next meeting will be held in Saint Louis, April, 1897. Officers were chosen as follows: President, A. H. Cordier, in of Kansas City; Senior V. P., Hugh T. Patrick, Chicago; Junior V. P., H. C. Eschbach, Albia, Iowa; Treasurer, C. S. Chase, of Waterloo, Iowa; Secretary, George W. Cale, of St. Louis.

RAILROAD ARRANGEMENTS FOR THE AMERICAN MEDICAL ASSOCIATION, ATLANTA, MAY 2d to 8th.

For the above occasion the "Big Four Route," which has been declared the Official Line, will sell tickets, St. Louis to Atlanta and return at one and one-third fares for the round trip on the Certificate plan. All members who contemplate attending the Atlanta meeting should arrange to join the Official Train. Full information will be cheerfully furnished on application to

W. J. LYNCH,
Assistant General Passenger Agent,
Big Four Route, St. Louis.

NATIONAL ASSOCIATION OF RAILWAY SURGEONS.

Elsewhere we publish the program of the National Association of Railway Surgeons. This splendid society, representing the bone and sinew of railway surgery, will meet in Saint Louis, April 29 and 30, and May 1, 1896, under the presidency of Doctor John B. Murphy, of Chicago. The local arrangements are under the supervision of Doctor Warren B. Outten, Surgeon-in-Chief of the Missouri Pacific Railway. These gentlemen have prepared a program, the equal of which has rarely been seen in this country. Without doubt the coming meeting will be the best ever held by the Association. The physicians and surgeons of Saint Louis will entertain visiting brethren in royal style.

Speaking of Doctor Murphy brings to mind the fact that this great surgeon recently removed the Gasserian ganglion, after Hartley's method, in the presence of a large number of the members of the Tri-State Medical Society.

IT IS POSSIBLE.

It is possible that the editor of this magazine, as Isaac remarks, may have hayseed in his hair, but we are quite sure that there are no hob nails on our liver. It is possible that we don't know our business, but we are sure that we have not figured as the chief attraction in the *Surgeon's Reverie*. It is possible that we are clumsy and uncouth, but 'tis better so than to be erratic, untrustworthy and *blasé*. It may be that we are not up to date, but we have not found it necessary to change our name from Isaac *Solomon* to Isaac *Newton* to cover up Judas blood.

It is true that we hail from Iowa, but nevertheless we are better than those who come from the slums. It is just possible that the TRI-STATE MEDICAL JOURNAL to-day has more money in its advertising pages than ever before, and that the *Mirror* is losing ground. We have not elected ourselves censors of the local profession nor of the *Police Gazette*. In fact, the list of possibilities is not exhausted.

DOCTOR STARKLOFF AND THE DAIRY INSPECTION BILL.

The citizens of St. Louis are to be congratulated upon having at the head of the Health Department a physician whose untiring energy and indomitable purpose have resulted in the passage of the dairy inspection bill. Of all legislative enactments in the City of Saint Louis for the protection of the public health this measure is pre-eminently the most important and far-reaching as it controls the sources of supply. There is not a home nor an individual that will not be benefited by its enactment.

For years the dairy question has been agitated and discussed; the forces of self preservation and self interest have always been sufficiently strong to enable the dairymen to frustrate any attempt at sanitary legislation.

The importance of the measure may be realized when the current literature upon the subject is reviewed; the numerous epidemics of typhoid and scarlet fever which have been clearly traced to a contaminated milk supply makes us ask why this source of infection has so long gone undetected. The zymotic character of these diseases and the researches of bacteriology are a sufficient answer to the question.

The appalling mortality among young children which are bottle-fed, particularly in foundling asylums, is too well known, and the relation between it and an impure milk supply is without doubt direct and unquestionable.

We understand that the condition of some of the city dairies is something appalling. The fact that many are destitute of any pretense at sanitation, having no lots wherein the cows can be turned out for light and adequate exercise, together with the pernicious system of feeding brewers'

grains and other waste products in excess conduce to a lowered vitality and diminished resistance. The milk from such animals kept under such conditions should not be countenanced nor tolerated. It is hoped that the same vigor displayed in securing the passage of the bill will also secure its rigorous enforcement.

TRI-STATEMENTS.

CHAT CONCERNING THE CHICAGO MEETING OF THE TRI-STATE MEDICAL SOCIETY.

The luncheon given by Doctor Henrotin at the Chicago Athletic Club was thoroughly appreciated by all. It was not only satisfactory to the inner man but the surroundings were so elegant that the æsthetic taste of every doctor was sharpened. The club occupies its own million-and-a-half edifice.

The most modest man among the Chicago surgeons is said to be John B. Murphy. Realizing that he has reached the top round in the professional ladder, Doctor Murphy carries himself with ease, grace and modesty.

Doctor Naucrede, of Ann Arbor, Mich., read a scholarly paper on "Operative Treatment of Jacksonian and Focal Epilepsy," which was discussed by Doctor Thomas Osmond Summers of Saint Louis.

The TRI-STATE MEDICAL JOURNAL gained a large number of subscribers at the late meeting.

As usual, Messrs. Parke, Davis & Co., of Detroit, did the "handsome thing" and placed the visiting physicians under great obligations. The "smoker" under the command of Brigadier General Whitmore was an innovation. A prestidigitator showed the doctors some things which they could not understand; Doctors Pierce and Patrick sang some interesting songs; a ventriloquist amused the audience; Doctor Eschbach repeated his "bull story", and Brother Whitmore closed up the gaps. Doctor Harold N. Moyer presided.

Moyer's name makes us think of "*Medicine*"—the high class medical monthly of which Messrs. Parke, Davis & Co., are publishers. Without exception it is the best monthly medical journal in America.

The spirit of brotherly love which exists among Chicago doctors is delightful. Would that it might spread to every city and hamlet.

Doctor John B. Hamilton appeared at one session of the society. We believe that he did not become a member. John B. H., has very little time for Inter-State Medical organizations—so he says.

One of the most interesting characters in the Chicago profession is Alexander Hugh Ferguson who formerly lived in Winnipeg. Although he has been in Chicago only two years Doctor Ferguson is doing an immense amount of surgical work.

Saint Louis was represented by Doctors Paquin, Cale, Sutter, Summers, and ye editor.

One of the most valuable papers was that of Doctor Frank Allport, of Minneapolis, on "Opticians and Oculists." The Doctor holds that fitting

glasses is practicing ophthalmology, that practicing ophthalmology is practicing medicine; and that the practice of medicine is subject to statutory regulation. Hence opticians are amenable to the medical practice act. Good point.

Doctor James H. Etheridge, the genial gynecologist, took great interest in the meeting.

We were glad to see the strong features of Doctor Edmund Andrews upon the stage in Handel hall during Doctor Mathews' address.

From Doctor Wm. Baum we learn that the Post-Graduate school will soon have a new building—the finest and largest in the United States.

The election of Doctor A. H. Cordier, of Kansas City, to the Presidency is in keeping with the policy of the Tri-State Medical Society, it being pre-eminently a society of active, energetic young men.

Doctor C. S. Chase, of Waterloo, Iowa, was again elected Treasurer. He is enthusiastic over the Tri-State.

A Change of Position.—Attentive readers will notice the advertisement of the Battle Creek Sanitarium appears on the third page of cover.

Tri-State Exhibits.—Among the firms who were represented at the Chicago meeting of the Tri-State Medical Society were The Purdue Frederick Co., of New York (Mr. Clarence Sinclair); The W. T. Keener Co., of Chicago; Phenique Chemical Co., of St. Louis (Mr. Chas. B. McCall); Maltine Chemical Co., of New York (Mr. Charles J. Gibson); Arlington Chemical Co., (Dr. C. L. Fawcett); American Ball Nozzle Co., (Mr. Fred A. Curtiss; Charles Truax; Greene & Co., of Chicago; Wm. R. Warner & Co., of Philadelphia; Londonderry Lithia Water (Dr. Agnew); W. D. Allison Co., of Indianapolis, and others.

A Good Beverage.—Londonderry Lithia Water.

Called.—Doctor Wm. B. Dewees, of Salina, Kansas, recently invaded our sanctum. Come again, doctor.

An Excellent Journal.—*The Journal of Experimental Medicine*, which we have not had the pleasure of reading, is said to be a highly scientific quarterly publication, and is issued by Appleton & Co.

Monograph on Coca.—We acknowledge the receipt of a valuable brochure on Coca and its Therapeutic Application, by Mr. Angelo Mariani, of 52 West 15th street, N. Y. This little book is well written, finely illustrated, and contains such information as will be appreciated by physicians.

Recovering.—We are glad to know that Doctor J. Homer Coulter, of Chicago, who has recently arisen from a bed of sickness, will soon be himself again and will contribute regularly to the TRI-STATE MEDICAL JOURNAL.

New Medical Book Store.—The W. T. Keener Co., of Chicago, has opened a complete line of medical books in Saint Louis; corner of Eighth and Locust streets. The new store is under the control of Mr. Colegrove, a courteous gentleman with whom it is a pleasure to deal. We predict success for this enterprising firm.

New Hospital.—The Saint Louis Eye, Ear and Throat Hospital, is being organized and will soon be ready to receive patients.

HISTORICAL SKETCH.

THE PHYSIOLOGY OF THE AZTECS.

By David Cerna, M. D., Ph. D., of Galveston, Texas.

Demonstrator of Physiology and Lecturer on the History of Medicine in the Medical Department of the University of Texas, Etc.

LIKE *Artemis* among the Greeks, among the Mexicans *Cihuacoatl*, or *Quilaztli*, was considered as the first woman to have borne children, these being always twins.

It is related in hellenic mythic story that *Artemis* pleaded to Jupiter that she might remain sterile throughout her life, terrified as she was at the pangs of parturition; but, in punishment for a crime most heinous, presumably an infanticide, she eventually became by command of Jove, and through the influence of god-like superfecundation, the mother of fifty children at once, all females.

Whether anything of the kind happened also to the Mexican goddess it is not stated in the hieroglyphic writings of the Aztecs; but *Cihuacoatl* was afterwards considered by these people as the divinity of natural labor. The epoch of obstetrics among the civilized nations of this continent may be said, therefore, to have begun from the time of *Cihuacoatl*. *Tzinteutl*, or *Xochiquetzal*, was the goddess of pregnant women; *Xolotl*, the divinity of twins and monstrosities. After labor, the goddess of the water, called by the Aztecs *Chalchiucueye*, or *Chalchihuitlicue*, by the Tlaxcaltecs *Matlacueye*, by some Indian historians *Xochiquetzalli*, and by others *Macuilxochiquetzalli*, interfered, and on her depended all those diseases believed to be caused by the water, such as rheumatism, gout, and others. *Ixtliton*, or *Tlatecuin*, a black deity, presided over the diseases of children, etc.

Although entertaining correct notions about other branches of the science of medicine, the Aztecs were deficient in physiological knowledge, comparatively speaking. But this is not to be wondered at when it is remembered that even Hippocrates, Aristotle, Herophilus, Galen, and many other famous medical men of antiquity, in the far East, great observers as they were, and enjoying, in some respects at least, better opportunities for study, could not understand, much less explain, the simplest functions of the animal organism, most of the secrets of which have only been revealed by comparatively recent observation coupled with experimental research.

In ancient Eastern superstition, even among the enlightened races, especially the Greeks, the bodies of the dead were considered sacred, and, therefore, human dissection was interdicted by custom and by law. For this reason, the most distinguished medical men of past times, from Hippocrates to Aristotle, were absolutely ignorant of human anatomy, and, hence, of physiology. With Aristotle, however, a new and brilliant era in the study of anatomy was ushered, and *pari passu* with the growth of this important branch of medical science, physiology, or an inquiry into the functions of the various organs of the body, began to assume a certain form, though rude and unshapely. And it is worthy of note that the Aztecs were acquainted with facts in physiology *unknown* to the Eastern peoples.

Verily, the physiology of the Aztecs, though imperfect and at times highly amusing, exhibits now and then a wonderful insight into the truth, an insight comparable to that of the greatest observers of all ages; a further proof, indeed, that the inhabitants of beautiful *Anahuac*, whether aborigines or descendants of Eastern races, belonged to a superior stock.

The ancient Mexicans had a more or less correct notion of the mechanism of the various functions in the organism. For example, to designate digestion in man and in the animals belonging to his class, and for the performance of which they attributed an important part to the stomach, they employed the word *Tlatemoniliztli*. They knew, again, that in birds the mechanism is not exactly the same, and were aware of the true office of the crop in these animals, which they called *tememetlatl*.

The name of *ncihiyotiliztli* was given to the movements of respiration, but it seems that they did not understand the true office of the lungs.

In regard to a knowledge of the circulatory system, in part at least, the Aztecs seem to have been in advance of some of the most renowned ancient physicians of the Eastern Continent. In fact, the Mexicans were fully acquainted with the beating of the heart, and probably came in possession of this knowledge from actual observation *on the human being*.

The practice of human sacrifices in holocaust of the gods, so common among the Aztecs, as among other races in the primitive condition of man, is a well established fact. Thus the historian tells us that at the proper time, during those famous ceremonies held in their *teocalli* (temples), and before the statue of the blood-thirsty *Huitzilipochtli*, the victim to be immolated was "led to the sacrificial stone, a huge block of jasper, with its upper surface somewhat convex. On this the prisoner was stretched. Five priests secured his head and limbs, while the sixth, clad in a scarlet mantle, emblematic of his bloody office, dexterously opened the breast of the wretched victim with a sharp razor of *itztli*—a volcanic substance, hard as flint—and inserting his hand in the wound, tore out the palpitating heart."

These cardiac pulsations they termed *tetecuiczliztli*. But they went further, and recognized the radial pulse which the Aztecs called *tlahuatl ytetecuicaca* or *tomatlalhuacayo ytetecuicaca*, the nature of which, however, they probably did not fully understand. This, nevertheless, does not detract from their scrutinizing inquiries, for let it not be forgotten that although Praxagoras of Cos was the first to make a distinction between arteries and veins, and Herophilus, of the Alexandrian school, seems to have been the first observer to build a system of the pulse, this, according to him, (and correctly so), being communicated from the heart to the walls of the arteries; yet, how many centuries passed before the true nature of this phenomenon was known even to the enlightened medical profession of Europe?

Like the generality of the ancient physicians, the Aztecs believed that the blood vessels contained only air and spirits, a circumstance which led them to give to the veins especially, the appellation of *ihiyotl iyoni*, equivalent to the word artery, meaning air-bearing vessels.

Their ideas about the various secretions evince scientific observations. They divided them, as is done at present, into two classes, that is, into secretions proper and excretions. In the former they included the bile, which they called *chichicatl*; the saliva, for which they employed synony-

mously the words *taztlac* and *chichitl*, and other secretions to be presently mentioned.

In ancient times, and even shortly before the researches of the immortal Harvey, who not only discovered the circulation of the blood, but was the first also to promulgate the axiom, *omne vivum ex ovo*, and those of Hartsoecker, who appears to have first asserted that the spermatozoa penetrated the ovum, all medical observers and writers of all countries had, with few exceptions, entertained most fanciful ideas about generation and the fluids secreted by the sexual organs. The Greek schools furnish much interesting material in this respect. According to Anaxagoras males originate in the right, females in the left side of the uterus. Empedocles, of Agrigentum, to whom we owe the words "amnion" and "allantois," thought that the embryo was nourished through the umbilicus, and that its sex was determined by the predominance of heat or cold in the parents. Alcmæon, of Crotona, like his master Pythagoras, asserted that the semen originated from the brain, and believed that the head of the fœtus was the part first developed. Hippocrates, the great Hippocrates, held, not unlike Anaxagoras, that the semen of the right testicle got to the right side of the womb and originated males, and that the semen of the left testicle went to the left side of the uterus where the conception was of the female sex. Aristotle affirmed that the semen, which is always white, no matter what the color of the individual, by mixing with the menstrual blood, gave rise to generation, that is, the spiritual element of the semen caused the menstrual blood to coagulate, giving rise to the origin of the embryo. Herophilus did not seem to offer newer ideas about the subject, and although he regarded menstruation necessary both to health and to pregnancy, and was the first to describe the epididymis, he knew nothing further about the former, and believed the latter to be of no use to the economy.

Now, if these brilliant observers, whom we have referred to by way of parenthesis, could not understand one of the most important of the animal functions, generation, it would not be a source of surprise had the Aztecs failed absolutely to form an idea about the subject under consideration. Yet these people recognized the fact that the semen was concerned chiefly in generation. This liquid, which they considered as a true secretion, they called *tepulcayotl* or *tlacaxinachtli*. The semen, they affirm, is ejaculated through the penis, *yulli*, during coitus, *auilnemiliztli*, and frequently also during those erections occurring after a more or less prolonged sexual abstinence. This latter condition was known under the appellation of *nepializtli*. The vaginal secretion, or more properly perhaps that of the glands of Bartholini, the Aztecs supposed to be the semen of the female, and, therefore, they termed it *tocihuayo* or *cihuaayotl*. The monthly discharge received the name of *ezquizaliztli* or *cihuacocolli*, and the menstrual period they called *mezquiza* or *eznitomillztli*, but it is apparent that the Aztecs failed to recognize the true nature of this function.

To the secretion of the skin, the sweat, they gave the name of *ytonalli*.

Cuitlatl was the generic term employed by the Mexicans for the various excretions. Of these the human excrement, which they especially called *cuitlatl*, was looked upon as the type. The excrement of children, and particularly that of the new-born infant, the meconium, was called

conecuitlatl. The excretion of the nasal cavities was termed *yacacuitlatl;* that of the ear, the cerumen, *nacacuitlatl* or *tonacazcuitl*. *Tixayo* or *yxcuitlatl* stood for tears, and *axixtl* for the urine.

The ancient Mexicans entertained ideas of at least some of the functions of the nervous system. For instance, and apparently with a certain degree of authority, they spoke of the senses of smell, *totlanecuia;* of touch, *totlai natocaya;* and of taste, *veliztli* or *totlanehuatia*, etc. But whether they understood these senses correctly it has not been ascertained. It is not likely, however, that the Aztecs could explain the physiological mechanism producing these phenomena.

DEPARTMENT OF RHINOLOGY AND LARYNGOLOGY.

By J. HOMER COULTER, A.M., M.D., Ph. D., of Chicago.

The Antrum of Highmore is apparently apt to become almost as pronounced a fad among rhinologists, as the appendix has already become with surgeons. In every periodical of any consequence there has appeared during the past year from one to ten articles relative to some phase of antral trouble. Foreign literature, as well as American, has furnished a running discussion of the subject in all its various phases. Dental Journals, Surgical and Medical, as well as those of special limitations, have each claimed these, as their special appropriation. The writer does not claim an alibi, or blame "the other man" for such fact. But is it not possible that we are making the subject too much a "fad"? Are the results obtained both in relief afforded, and permanency sufficiently warranting? Have our cases been as carefully selected as the seriousness of the operation demands? Then, most important of all, has sufficient skill been exercised? A candid, honest answer to this question is most important to the patient, as well as ourselves, vastly more important than whether we shall operate intra-nasal or through the alveolar process, or extract even a sound tooth. Bunglesome surgery has ever been the bane of success, largely because of inaccurate anatomical knowledge, and want of thoroughness. If you have not that exact knowledge, or cannot be certain in your operating, for the sake of the patient, and the reputation you can make along other lines, do not attempt the work.

Dr. E. J. Birmingham, of New York, in the Texas State Society Transactions, has a very practical and interesting paper on the subject "Rhinological Don'ts." Most of the advice given is pointed and thoroughly practical. However, not all the statements made would be accepted by the specialist as conclusively established. Among other points in the paper appear the following:

1. Don't make a diagnosis without both anterior and posterior examination of the nares.

2. Don't forget the respiratory function of the nose; it must be established and maintained.

3. Don't fail to thoroughly cleanse the entire cavity, with an alkaline solution, before making a medicinal application.

4. Don't use a palate-hook in making a post-nasal examination. Have the patient breathe through the nose, the effect will be the same.

5. Don't allow the patients to use cocaine themselves under any circumstances. Sprays of 5 per cent solution of antipyrine will answer the same purpose better.

6. Don't fail to correct an existing stenosis.

7. Don't fail to promptly open a septal abscess.

8. Don't plug the nasal cavity for hemorrhage until you know *just where* the hemorrhage comes from.

9. Don't treat adenoids by caustics or astringents, and don't leave the smallest particle behind.

(To the first proposition I would say amen; but to the second I would as strenuously object, as being not only misleading, but pernicious. It is a *well known fact* that these growths tend to atrophy whenever their general nutrition is interfered with to any considerable extent; and again, too persistent cutting or scraping would endanger the pharyngeal mucous membrane.)

10. Don't neglect constitutional as well as local treatment, when indicated.

Dr. Max Thorner, of Cincinnati, following the lead of Kirstein, of Berlin, has given to the profession in a recent issue of the *Journal of the American Medical Association*, some new ideas on an instrument devised for the direct inspection of the larynx and trachea, instead of by the image as seen in the laryngeal mirror. This instrument he calls the autoscope. It resembles somewhat a large, long tongue depressor, the proximal end of which is equipped with a small electric lamp, whose rays are directed along the shaft of the depressor by a prismatic condenser. In the article above referred to the instrument is fully described, and the technique of using it fully explained.

Criticism born of inexperience is never of much value, but it would seem that the use of such an instrument would necessarily be somewhat limited. We all know how sensitive are some throats, and I fear the instrument may lead to a more reckless use of the cocaine spray.

The progress of the past year has, I apprehend, been more marked with reference to the pharynx and larynx than in the nasal and accessory cavity work. In the latter little purely original work was done. It seemed more of a determining process. A presentation of the old subjects in every possible phase. A sort of final judgment on the etiology and pathology of conditions which have been claiming attention for the past few years. Along with this, as might be expected, a more positive and reliable therapy has certainly been established. We hope a grand step forward has been made in the treatment of diphtheria. Just now the antitoxin seems to be a boon second only to that of vaccination.

New Journals.—We understand that Saint Louis is soon to have two new medical journals. One will be a weekly devoted to general medicine; the other a monthly gynecological journal. We wish them success.

MEDICAL SOCIETY MEETINGS FOR 1896.

LOCAL SOCIETIES.

I. St. Louis Academy of Medical and Surgical Sciences, meets every Friday evening.

II. St. Louis Medical Society, meets every Saturday night, in Public Library Building, Ninth and Locust Streets, at 8 o'clock.

STATE AND NATIONAL MEETINGS.

April 28. Texas State Medical Association, at Fort Worth.
April 28. Medical and Chirurgical Faculty of Maryland, at Baltimore.
April 29–May 1. National Association of Railway Surgeons, at St. Louis.
April 29. Arkansas State Medical Society, at Fort Smith.
April 30–May 2. Association of American Physicians, at Washington, D. C.
May 2–4. American Academy of Medicine, at Atlanta, Ga.
May 5. Louisiana State Medical Society, at New Orleans.
May 5. Linton District Medical Society, at Mexico, Mo.
May 5–8. American Medical Association, at Atlanta, Ga.
May 12. Medical Society of North Carolina, at Winston.
May 13–15. Kansas Medical Society, at Topeka.
May 14–15. Southern Illinois Medical Association, at East St. Louis.
May 18. American Orthopedic Association, at Buffalo, N. Y.
May 19–21. Illinois State Medical Society, at Ottawa.
May 19–21. Missouri State Medical Association, at Sedalia.
May 19. State Medical Association of Pennsylvania, at Harrisburg.
May 19–21. Washington State Medical Society, at Tacoma.
May 26. American Gynecological Society, at New York City.
May 27–28. Connecticut Medical Society, at New Haven.
May 27–29. Ohio State Medical Society, at Columbus.
May —. American Laryngological Association, at Pittsburg.
May —. American Paedriatic Society, at Montreal, Canada.
June 1–2. New Hampshire State Medical Society, at Concord.
June 3. Maine Medical Association, at Portland.
June 4. Rhode Island Medical Society, at Providence.
June 4–5. Ontario Medical Association, Windsor.
June 4–5. Michigan State Medical Society, at Mt. Clemens.
June 5–6. Indiana State Medical Society, at Fort Wayne.
June 9–10. Massachusetts Medical Society, at Boston.
June 16–17. Army and Navy Medical Association, at Havana, Ill.
June 16–18. Colorado State Medical Society, at Denver.
June 17. Minnesota State Medical Society, at Minneapolis.
June 20. American Association of Physicians and Surgeons at Niagara Falls.
June 23. Medical Society of New Jersey, at Asbury Park.
June 23. Medical Society of Delaware, at Newark.

June —. American Association of Genito-Urinary Surgeons, at Atlantic City.
June —. Association of Military Surgeons of the United States, at Philadelphia.
June —. Nebraska State Medical Society, at Fremont.
June —. Oregon State Medical Society, at Portland.
June —. Wisconsin State Medical Society, at Superior.
June —. Kentucky State Medical Society, at Lebanon.
July 15. American Ophthalmological Society, New London.
July —. Medical Society of West Virginia, at Wheeling.
August 12. New Mexico Medical Society, at Socorro.
September 8. American Dermatological Society, at The Springs of Virginia.
September 15. American Association of Obstetricians and Gynecologists, at Richmond, Va.
September 17. Medical Society of the Missouri Valley, at Council Bluffs, Ia.
September —. Medical Society of Virginia, at Danville.
September —. Idaho State Medical Society, at Boise City.
September —. American Electro-Therapeutic Association, at Boston.
October 1–2. Utah State Medical Society, at Salt Lake City.
November 10. Southern Surgical and Gynæcological Association, at Nashville, Tenn.
Secretaries of Medical Societies will confer a favor by informing us of dates of meetings.

SOCIETY ANNOUNCEMENTS.

PROGRAM OF NATIONAL ASSOCIATION OF RAILWAY SURGEONS.

The Ninth Annual Meeting of the National Association of Railway Surgeons will be held in St. Louis, April 29th, 30th and May 1st, 1896, at the Pickwick Theatre, corner Washington and Jefferson Ave.

{ FIRST DAY'S SESSION,
{ WEDNESDAY, APRIL 29th, 10:00 O'CLOCK, A. M.

Prisquam incipias consulto et ubi consulueris mature facto opus est.—*Sallust.* (Before you begin, consider: but having considered, use dispatch.)

1. Opening of the Ninth Annual Convention by the Chairman of Committee of Arrangements.
2. Address of Welcome by Dr. M. C. Starkloff, Health Commissioner of St. Louis.
3. Response to Address of Welcome by Dr. F. J. Lutz, St. Louis.
4. Introduction of the President, Dr. J. B. Murphy, Chicago.
5. President's Address.
6. Report of Treasurer.
7. Report of Secretary.
8. Miscellaneous Business.

WEDNESDAY, APRIL 29th,
AFTERNOON SESSION 2:00 O'CLOCK P. M.

Omnes sapientes decet confere et fabulari—Plautus. (All wise people ought to confer and hold converse with each other.)

1. Reading of Minutes of Morning Session.
2. Report of Committee of Arrangements.
3. Report of Committee on Publication.
4. Report of Executive Committee.
5. Appointing Nominating Committee.

PAPERS AND DISCUSSIONS.

6. "Traumatism of Abdominal Viscera," by Dr. J. D. Northrup, Marquette, Mich.
7. "Rupture of Bladder with no evidence of External Injury," by Dr. S. R. Wooster, Grand Rapids, Mich.
8. "When to Amputate, Brief Rules Formulated," by Dr. S. Birdsall, Susquehanna, Pa.
9. "Surgical Treatment of Injuries of Spinal Cord and Column," by Dr. T. H. Briggs, Battle Creek, Mich.
10. "Should we have Pus in Railway Surgery?" by Dr. Lester Keller, Irontown, Ohio.

WEDNESDAY, APRIL 29TH,
EVENING SESSION, 8:00 O'CLOCK, P. M.

Fortes in fine assequendo et suaves in modo assequandi simus—Aquaviva. (Let us be resolute in prosecuting our purpose and mild in the manner of obtaining it.)

1. Reading of Minutes of Last Meeting.
2. Announcement Chairman of Committee of Arrangements.

PAPERS AND DISCUSSIONS.

3. "Hot Water Irrigation of the Eye in the Treatment of Gonorrhœal Ophthalmia," by Dr. Leroy Dibble, Kansas City, Mo.
4. "Traumatisms of the Eye-ball," by Dr. Cassius D. Wescott, Chicago, Ill.
5. "Color Blindness," by Dr. D. Emmett Welsh, Grand Rapids, Mich.
6. "Tumor of the Lachrymal Gland," by Dr. A. Alt, St. Louis.
7. "Eye Symptoms of Brain Tumor," by Dr. James Moores Ball, St. Louis.
8. "Railway Transportation of the Dead," by Dr. J. D. Griffith, Kansas City, Mo.
9. "Why Railroad Surgeons should not try to practice Aseptic Surgery," by Dr. Emory Lanphear, St. Louis.
10. "Injuries to the Joints," by Dr. Milton Jay, Chicago, Ill.

THURSDAY, APRIL 30TH,
MORNING SESSION, 9:00 A. M.

Nulla aetas ad perdiscendum est.—Ambrose. (There is no time of life past learning something.)

1. Reading Minutes of Last Session.
2. Report of Committee of Arrangements.
3. Report of Special Committees.
4. New business.

PAPERS AND DISCUSSIONS.

5. "One Fallacy regarding ununited Fracture, with Report of Cases," by Dr. E. R. Lewis, Kansas City, Mo.

6. "Atony from Traumatism," by Dr. J. M. Dixon, Springfield, Ill.

7. "Secondary Amputation," by Dr. Alex. Hugh Ferguson, Chicago.

8. "The Care and Management of Railway Injuries from first dressing or operation until discharged," by Dr. N. A. Drake, Kansas City, Mo.

9. "The Immediate Treatment of Compound Fracture," by Dr. Waldo Briggs, St. Louis.

10. "Roentgen's or 'X' Rays and their value to the Scientific Physician and Surgeon, with Demonstrations," by Dr. Wellington Adams, St. Louis.

{ THURSDAY, APRIL 30TH,
{ AFTERNOON SESSION, 2:00 O'CLOCK, P. M.

Scire tuum nihil est nisi te scire sciat alter—Persius. (It is nothing for you to know a thing unless another knows that you know it.)

1. Reading of Minutes of Previous Session.
2. Report of Committee of Arrangements.
3. Miscellaneous Business.

PAPERS AND DISCUSSIONS.

4. "Conservative Treatment of Injuries to Large Vessels, with Reports of Specimens and Clinical Observation," by Dr. J. B. Murphy, President, Chicago, Ill.

5. "Railway Neurasthenia," by Dr. Thomas Osmond Summers.

6. "Restoration of Nerves after Injury, Experimental Research and Clinical Observation," by Dr. A. H. Levings, Milwaukee, Wis.

7. "Capital Operations without Anesthesia and the use of Large Saline Effusions in Acute Anaemia," by Dr. J. J. Buchanan, Pittsburg, Pa.

8. "A Case of Strangulated Inguinal Hernia with Unusual Medico-Legal Aspects," by Dr. Allen Staples, Dubuque, Iowa.

9. "Stereopticon Views of Deformities following Fractures," by Dr. Geo. W. Crilley, Cleveland, Ohio.

{ THURSDAY, APRIL 30TH,
{ EVENING SESSION, 8:00 O'CLOCK, P. M.

Opinionum enim commenta delet dies nature judicia confirmat—Cicero. (Time effaces the fabrication of opinion, but confirms the judgment of nature.)

1. Reading Minutes of Previous Meeting.
2. Report of Chairman Committee of Arrangements.
3. New Business.

PAPERS AND DISCUSSIONS.

4. "An Address on Surgery," by Dr. John B. Deaver, Philadelphia, Pa.

5. "Diagnostic Relations of Hysteria, Neurasthenia and Traumatic Neurosis," by Dr. Harrold N. Moyer, Chicago, Ill.

6. "A Study of Synthetic Metabolism in the Healing of Granulated Wounds," by Dr. Warren B. Outten, St. Louis, Mo.

7. "Shoulder Joint Injuries, their Causation and Morbid Anatomy," by Dr. T. H. Manley, New York.

8. "Traumatic Neurosis, resulting from railway and other accidents," by Dr. John Punton, Kansas City, Mo.

{ FRIDAY, MAY 1ST,
{ MORNING SESSION, 9:00 O'CLOCK, A. M.

Utendum est aetate cito pedo labitur aetas.—Ovid. (We must make use of time; time glides past at a rapid pace.)

1. Reading of Minutes of Previous Meeting.
2. Report of Committee of Arrangements.
3. Report of Executive Committee.
4. Election of Officers. *a.* President, Secretary and Treasurer. *b.* Report of Committee on Nomination.
5. Selection of Place of Next Meeting.
6. Report of Special Committees.
7. Miscellaneous Business.

PAPERS AND DISCUSSIONS.

8. "Inflammation of Bones," by Dr. A. J. Fulton, Kansas City, Mo.
9. "Mental Shock in Railway Accidents and its Hysterical Outcroppings," by Dr. Keating Bauduy, St. Louis, Mo.
10. "Deflective Septum," by Dr. J. A. James James, St. Louis, Mo.

{ FRIDAY, MAY 1ST,
{ AFTERNOON SESSION, 2:00 O'CLOCK, P. M.

Ponderando sunt testimones non numeranda. (Testimonies are to be weighed, not counted.)

1. Reading of Minutes of Previous Meeting.
2. Announcement of Committee of Arrangements.
3. Unfinished Business.

PAPERS AND DISCUSSIONS.

4. "Nephritic Calculi," by Dr. W. S. Cadwell, Freeport, Ill.
5. "Hygienic and Practical Treatment after Operations on the Kidney," by Dr. Horace Manchester Brown, Milwaukee, Wis.
6. "Railway Employees' Hospital Association," by Dr. Geo. Chaffee, Brooklyn, N. Y.
7. "My Aluminum Clamp Artery Compressor to supersede the Ligature," by Dr. Evan O'Neil, Kane, Pa.
8. "The Future Railway Surgery," by H. Clark Bell, New York.
9. "Paper by (title not given) Dr. A. L. Wright, Carroll, Iowa.

Olim meminisse juvabit—Virgil. (It will delight us to recall these things some day hereafter.)

Linton District Medical Society. — This society will meet at Mexico, Mo., Tuesday, May 5th. Papers will be read by Doctors E. N. Gentry, Sturgeon; J. O. Terrell, Vandalia; A. R. McComes, Sturgeon; N. F. Baker, Fulton; F. M. C. Usher, Mexico; James Moores Ball, St. Louis; M. D. Lewis, Columbia; J. S. Pearson, Louisiana; and Graham, Columbia. The officers are: Dr. W. R. Rodes, President; Dr. C. A. Rothwell, First Vice-President; Dr. C. T. Varnon, Second Vice-President; Dr. M. Yates, Treasurer; Dr. L. O. Rodes, Secretary.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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DR. F. REDER, Hannibal, Mo.

Vol. III. SAINT LOUIS, MAY, 1896. No. 5.

CLINICAL LECTURE.

LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION.

By G. FRANK LYDSTON, M. D.,

Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Attending General Surgeon to the Militant Hospital; Lecturer on Criminal Anthropology in the Kent College of Law.

LECTURE ON MASTURBATION AND SEXUAL EXCESSES.

Gentlemen:—

IN our studies of disease we are compelled to lay false modesty and delicacy aside and grapple with every problem that presents itself as bearing upon the health and happiness of the human race. There is no subject more worthy of your attention than that which will be presented to you this morning, and it will devolve upon you as the family physicians of future generations of young men and women, to do your part—and a very important one it is—in checking that most universal of vices, masturbation. Not only is the vice physically injurious, but it enters largely into the question of youthful morals, and as is often the case, we will find that our success in improving the moral tone of the young will be directly proportionate to our success in correcting a physical evil. In every study of the subject, it is necessary to bear in mind that disease is often a cause rather than a result of the habit.

It is an unfortunate circumstance that society has left the responsibility of educating our youth in regard to sexual physiology entirely to the physician. It is certainly an onerous and thankless task, and involves so many intricate social problems and questions of delicacy, that it is no wonder that our profession is rather averse to assuming obligations which should justly fall upon the parent. Children are taught from an early period until they begin to blunder accidentally upon some of the truths of sexual physiology, to regard the generative apparatus as something mysterious or unholy; indeed, the average boy is rather inclined to believe that his penis is an appendage of which he is in duty bound to be ashamed, and in regard to the functions of which he must by no means inquire. Parents and teachers shun the subject most persistently, and the child is left to its own resources for explanations of the sexual question; the character of these resources and the perniciousness of the result being entirely a matter of environment; and, unfortunately, this is usually such as is best calculated to produce irreparable moral injury. This is pre-eminently true in the case of boys whose associations are quite apt to be evil, or what is practically the same thing, such as tend to bring them in contact with others as ignorant as themselves. So seldom is this matter presented in a proper light, that I take pleasure in quoting from an excellent essay upon this subject, appearing some years ago, certain facts which are so pertinent that they will at least serve to direct us to a sense of our own duty in the premises, even if they do not reach those who are more intimately associated with the care and instruction of the young:

"Having been lied to as to the origin of the baby, and thereafter deserted regarding this kind of information, the boy and girl are driven to vicious companions and unchaste literature to find out what it all signifies —for find it out they will, when this common and irrepressible effervescence of their nature is going on.

"Stimulated by the disingenuousness of their superiors, they make rapid acquisitions of defective knowledge through their observations of the habits of animals, and otherwise, and are forced by their faulty conclusions into abounding perils. They thus are trained to live in the atmosphere of sex, where all the untutored impulses of their beings center. Society further lends a hand and feeds them upon the debasing details of all sorts of sexual waywardness. Rapes, adulteries, seductions and brothel doings are paraded under flaming headlines on the first page of the family newspaper, and allowed to fall into the hands of the presumably innocent and pure.

"Libraries, news-stands, and both the secular and religious press all pander to a vitiated curiosity. Prurient novels, pictorial illustrations, and the iniquitous quack advertisements in our periodical literature headed, 'To the Unmarried,' 'Marriage Guide,' 'Manhood,' etc., all go to swell the volume of depravity. Beyond the comprehension, this line of reading

misleads the mind, inflames the imagination, corrupts the heart and degrades the character. Courts of justice engaged in the trial of these things carry on the education by donating all their standing room to carnal-minded spectators, or those fast becoming such, and permitting the vile records of their doings to be spread in black and white, for the vitiation of a multitude outside.

("An indicator of right action in these matters is found in the fact that the law of England forbids this promiscuous and unfettered attendance upon court proceedings during divorce, breach of promise, adultery and other suits of the kind.)

"Schools and colleges also contribute to the morbid imaginings. The impurities and indecencies of the heathen deities and historical characters which the youth in the classics are led to contemplate so laboriously, have anything but an ennobling effect. The implied doctrine is, that lust in those days went on unchecked and without evil result. As a consequence, many persons have found the work of rooting out of their minds the evil influences of ancient examples, so vividly impressed by the hard wrestle of classical acquisition, a far greater task than the original mastery of the language itself."*

It would not be possible for us to completely correct the evils of the present system of management of the sexual education of the young, in our day and generation, but we may, perhaps, call attention to the subject in such a manner that future generations shall reap the reward of our labors. To accomplish a great deal within a short time, would necessitate an almost complete reconstruction of the social fabric.

The extent to which masturbation is practiced, especially by the male sex, is humiliating to one who believes in the innate superiority of the human species as compared with the lower types of animal life. *That man, with his superior intellect, should be the only animal that has ever been known to indulge in this degrading habit to the extent of producing physical injury, is a sad commentary upon the morals and intelligence of humanity.* Animals do indulge in masturbation, it is true, but in rare instances, and from structural peculiarities they are not apt to perform the act to any considerable extent. Very few boys, indeed, arrive at adult age without having indulged in the secret vice to a greater or less extent, and it is a fortunate thing for the race that so few are ever seriously injured by it. Girls are much less apt to fall into the habit than boys, but I am confident that it is more prevalent among them than is believed by most physicians.

Masturbation is most often begun at about the age of puberty, but it is often commenced at a much earlier age. Suckling infants have even been known to masturbate, or what amounts to the same thing, to make movements apparently productive of voluptuous sensations. Seminal emissions

*"The Social Substratum." O. S. Runnels, M. D., *Medical Era.*

do not, of course, occur before puberty, but an orgasm, attended by the ejaculation of the secretion of the urethral, and Cowper's glands and the prostate may occur at an early age. Depraved nurses often initiate their little charges in the habit, by handling their genitals for the purpose of quieting them. The voluptuous sensations thus produced leave a permanent impression upon the susceptible nervous system of the child, and when the physiological disturbance of puberty arrives, he or she is apt to recall past experiences and become a confirmed masturbator. The importance of a strict surveillance upon nurses and domestics who are entrusted with the care of children, should be impressed upon the minds of parents—who should at least watch their children, even though they cannot be induced to teach them something of physiology. Howe relates a case of a gentleman who had suffered severely from masturbation, who confessed that the practice dated back to instruction received from a depraved nurse;* doubtless there are many parallel cases, could the truth be but known.

The prevalent custom of allowing children to sleep together is often responsible for the inculcation of vicious habits; this is especially true when great disparity of ages exist; for a precocious or vicious boy or girl approaching puberty, is sure to contaminate the morals of every child with whom he or she is brought in intimate contact. *Parents should be taught to regard every intimate attachment of their offspring for other children as worthy of distrust, and this warning is especially justifiable in cities.* Country children, with their excellent physique and many opportunities for the discharge of their superfluous animal spirits, are usually proportionately less likely to become vicious; then, too, they are not so apt to be taught vice by lewd persons of more advanced years.

Irritative affections of the sexual organs are often responsible for masturbation. Phimosis in boys produces balanitis and a highly sensitive glans penis, and in rubbing himself, either accidentally or to relieve pain, the child is liable to discover that titillation of the organ produces a pleasurable sensation, and this, after a time, inevitably leads to the development of a confirmed habit, which will persist after the local cause has been removed. The pain incidental to stone in the bladder has been known to result in this disaster.

Ascarides recti occasionally bear a very important relation to the habit of masturbation. The relation of the nervous supply of the lower portion of the rectum and the anus to that of the prostate and neck of the bladder is a very intimate one; there is also much community of vascular supply to these parts, and as a consequence irritation of the one is apt to lead to irritation of the other. It is nothing unusual for patients to complain of more or less irritation about the anus as a consequence of prostatic and vesical trouble. Conversely, reflected pain in the sexual organs is occasionally

*J. W. Howe. "Excessive Venery," etc.

experienced as a result of anal disease. Children, therefore, are apt to refer the irritation produced by ascarides to the sexual organs, and this induces them to manipulate the parts. Finding that the titillation is productive of pleasant effects, they are very apt to fall into the habit of masturbation. Ascarides in female children bear a still more important relation to masturbation because of the fact that they are apt to migrate from the rectum to the vulva and vagina. Cases of vaginitis due to this cause are occasionally seen.

Sexual precocity constitues a foundation for many cases of masturbation. This sexual precocity may be due (1) to heredity, and (2) to the causes of local irritation already mentioned. Persons of an extraordinarily amative disposition, who indulge excessively in sexual intercourse, are apt to pro-create children, who are not only feeble in physique and intellect, but are possessed of premature sexual desire. It has been claimed, and apparently with justice, that children of illegitimate parentage are particularly apt to develop sexual precocity. Premature sexual desire is sometimes associated with a precocious development of the sexual organs, as illustrated in the case of a female child which I will shortly relate. Mr. South, an English surgeon, some years ago reported a case of a male child less than twenty months old, in whom the penis was developed to a size above that of the average adult male organ, the pubes being covered with hair. This extraordinary freak was, as might naturally be expected, addicted to masturbation.

Female children may, through uncleanliness, become confirmed masturbators, and this point should be impressed upon the minds of their mothers whenever delicacy will permit of our so doing. Filth is quite apt to accumulate about the female genitals, and with the addition of highly acid, or perhaps, decomposed urine, to produce great irritation. Rubbing the genitals is quite natural under such circumstances, with the usual lamentable results. The amount of titillation necessary to produce an orgasm in some highly erethistic females is often surprisingly slight. I have met with two cases in my own practice that demonstrate this. One of these cases, a single woman of twenty-three, told me that she had only to will that an orgasm occur, in order to perform masturbation, and that the slightest touch upon the genitals when she was sexually excited, was sufficient to produce the desired result. The other was a young lady of seventeen, who stated that she masturbated several times a day by simply rubbing the thighs together. One of my professional friends relates a case in which a young woman had an orgasm whenever she attempted to run a sewing machine. The use of this appliance is especially apt to produce uterine congestion and irritation, as every competent gynæcologist is well aware.

In many cases of masturbation among women, pelvic disease is directly responsible for the vice, hence you must look upon some cases in a more than charitable light.

It is unfortunate that we have so few opportunities for determining the frequency of masturbation among women and female children, for although the female sex is much purer and less vicious than the male, I am satisfied that the vice is often responsible for nervous and local gynecic disease. Women resent any allusion to their sexual functions, and mothers will usually hate the physician most cordially if he so much as suggests the possibility of masturbation on the part of their children. They will usually believe what we say of other children, but as to their own, that is quite a different matter. You will often have your labor for your pains. Only a short time since, a lady brought a young relative to me regarding some painful trouble with the sexual organs. The child was only eight years of age, yet it was precociously developed and hair had already appeared upon the pubes and labia majora. I found upon examination that the ostium vaginæ was dilated, the hymen pouched inward, the nymphæ enlarged, reddened and bathed with mucus, and the clitoris larger than in most women. The slightest touch upon the parts caused the clitoris to become erect, and the involuntary movements of the child's limbs showed plainly the nature of the trouble. To say that the mother resented my diagnosis would be putting it mildly; indeed, I am satisfied that one more enemy is added to my list. Fortunately, the relative who brought the child to me is as intelligent as she is refined, and through her the mother may eventually be brought to realize the situation.

You must never let false modesty or the fear of resentment on the part of parents deter you from your plain duty in these delicate matters. It is a discouraging fact that it is difficult to impress these points upon parents; whether this be due to their cerebral density or because of their oversensitive recollection of their own evil ways, is a question difficult to answer. *Once in awhile you will meet a parent who is charmingly sensible, and when you do, you will feel that there is great satisfaction in doing your duty as physicians.*

Young girls, and upon the average, women, are naturally much purer-minded than the male sex, and their associations are not apt to be such as tend to lower the moral tone. When the female becomes corrupted, it is usually through the efforts of the opposite sex, and not through the influence of members of their own. Their sexual organs are less exposed, and in the performance of the natural function of urination are not handled, as is the case with the male; they are, consequently, less likely to discover accidentally that pleasurable sensations may be excited by manipulation of these organs, and thus be led into masturbation. After the age of puberty, the female is protected from sexual desire to a certain extent, by the periodical

relief afforded to the generative apparatus through the medium of the physiological function of menstruation. The sexual excitement attendant upon the beginning of menstruation is usually speedily relieved by the normal flow; even if it is not, it is obvious that manipulation of the organs is not apt to be practiced at that time. When the flow ceases, sexual excitement has usually disappeared, and does not again recur until the next menstrual epoch. This point should be taken into special consideration. In the case of the male, the organs are not only handled during micturition, but they are apt to actively assert themselves, even at times when the mind is entirely free from sexual thoughts. The distention of the bladder with urine which has accumulated during the night, is, for example, likely to produce vigorous erections in the morning. Such erections, although not dependent upon sexual excitement, are very apt to divert the mind in the direction of sexual matters, and tempt to manipulation.

Howe has directed attention to the perniciousness of certain kinds of gymnastic exercise as provocative of voluptuous sensations which may lead to masturbation, as follows: "These exercises are common in all gymnasiums and in many school grounds. My attention was first called to this subject by the history which a confirmed masturbator gave me of his first experiences. He entered school at the age of seven. The day after his admission he visited the school gymnasium. His attention was attracted to the swinging pole, around which a number of boys were enjoying themselves. He took hold with the rest, swinging himself around the circle for some time. In a few minutes he had such peculiar sensations about the genitals that he was forced to discontinue the movement and rest. Again and again he swung himself around, until he experienced the same effect, the sensations becoming more positive and intense. The next day, on trying the same experiment, the tingling sensations terminated in an orgasm. This led him to a closer examination of his organs and also to new methods of increasing the same excitement, until he became a confirmed masturbator."* Exercise involving climbing, swinging and sliding, are especially apt to lead to trouble, but I think that in healthy boys these movements may be indulged in moderately, without evil results. A robust boy, who indulges in such exercises is not apt to injure himself, as might a lad of less animal vigor and muscular strength. *One of the cardinal points in training boys should be to avoid perineal strain and friction, and exercises of a swinging character which produce vertigo and heighten the sensibility of the cerebellum, until the muscles have been well trained in other directions, and then with great moderation at first.* Many boys experience voluptuous sensations while climbing, but they are usually the more delicate lads. I have known a lad to fall from a tree and receive a broken arm because of an orgasm while climbing.

* "Excessive Venery."

Persons, whether young or old, who have prostatic irritation, are apt to have an orgasm while riding horseback; one of my own patients claims that he cannot ride a trotting horse on this account. This man has been a masturbator, and latterly had had a gonorrhœal prostatitis which left the seat of sexual sensibility hyperæsthetic. Boys of studious and retiring habits are most apt to be masturbators and to suffer severely from its effects. Sedentary and intellectual pursuits foster a hyperæsthetic condition of general as well as sexual sensibility. The active, robust, manly boy, who indulges in out-of-door athletic sports, hunting and so on, has an outlet for what one of my friends has aptly termed the "effusive cussedness" of boy nature, and is not so apt to study his sexual apparatus. Again, if he does acquire the habit, he breaks it off sooner by virtue of his greater volitional power, and it is less likely to do him permanent injury than his more delicate and intellectual brother. The mother's boy, of all others, is likely to need watching. Obviously, the damage produced by masturbation, is more marked in the male than in the female. Much vitality is consumed in the frequently recurring calls for a restoration of a highly elaborated and complex secretion like the semen. In the female the act produces merely a succession of nervous shocks, the injury produced being modified by the nervous resistance of the individual. As the function of the female in the sexual act is rather a passive one, comparatively speaking, we are not apt to be consulted regarding its effects in after life. I recall a case, however, of a woman who had been a masturbator, who claimed that she had never had an orgasm since marriage, the excitement stopping just short of culmination on every occasion.

The sexual orgasm has been likened to an epileptic attack, which in truth it greatly resembles, both in its phenomena and effects. The mental hebetude and physical prostration following the discharge of nerve force characteristic of an epileptic attack are well recognized. The sexual orgasm is analogous to epilepsy in that it appears to be attended by an expenditure of nerve force which is followed temporarily by a certain degree of nervous prostration with disinclination to mental exertion, and physical lassitude. Lallemand states the self-evident fact that in children and women, the effects which in the adult male we term "spermatorrhœa" are not due to a loss of any vital principle, *i. e.* semen, but to the impression made by the orgasm upon the nervous system. This he terms *ébranlement nerveux epileptiforme*. This is similar to the nervous exhaustion produced by mental excitement or convulsions, the latter being especially marked in young susceptible children. Tickling produces a similar effect. He relates a case in which a fatal result was produced by the effect of repeated convulsive shocks upon the brain, similar to those received by sensative subjects from tickling of the soles of the feet.

[TO BE CONTINUED.]

ORIGINAL ARTICLES.

THE USE OF PATENT MEDICINES.*

By G. Walter Barr, M. D., of Quincy, Illinois.

Professor of Materia Medica, Therapeutics, etc., in the College of Physicians and Surgeons, Keokuk, Iowa; Physician to Mercy Hospital; Member Illinois State Pharmaceutical Association, etc.

EVEN a young man can remember the holy horror with which the doctor was wont to hold up his hands at the mere mention of patent medicines with which the country was flooded just after the war. The fortunes which were made by selling ready, handsomely put up and well advertised nostrums to the laity, so that every man could be his own doctor with the aid of an almanac, are among the largest in America. The doctor cursed the "patent medicines;" he ridiculed them; he stated his belief that they were the direct production of the devil; he sent a bill at once to any of his clients whom he caught buying the accursed stuff at the drug store; he argued, pleaded and fought with the druggist who sold them; and, of course, he quoted the code of ethics.

That part of the code of ethics which bears upon the use of medicines says, in effect, that a physician should not use any drug or combination when he is ignorant of its nature; the reason is, that if the drug is unknown, its dynamic action will be unknown; the application of its physiological action to remove a pathology is then an absurdity, of course. Whatever else we may feel, this is the only tenable argument against the use of patent medicines—but it is amply sufficient to prevent physicians with any pretence of scientific acquirements using them.

The simpler term of patent medicines has been supplanted lately by the more alliterative one of "proprietary preparations." The latter name is more general in its application, but it did not take long for the maker of Manderson's Magnificent Medicine for Mumps and his fellows to establish themselves within its comprehensive sonorousness; and now all the cure-alls sold to the laity with their almanacs, calendars and picture cards, are "proprietary preparations," with none genuine without the signature on the bottle.

But the term covers several other things; and the proprietary preparations sold to-day may be classified into the old fashioned patent medicine for household use; those identical with these in that the composition is a secret, and unknown to the user, but different in that they are sold chiefly to alleged doctors; those the composition of which is stated on the label with more of less approximation to truth, with a sub-class where the composition is stated to be some combination of molecules which is amusing to the

*Read by title before the Tri-State Medical Society, Chicago, April 8, 1896.

chemist and paralyzing to the purchaser; those of which the formula is correctly given, but in a way to convey little information to the physician who is not an accomplished linguist; and those true to a stated formula with the claim that no one else uses quite so pure materials, or can mix things quite so well. To take these classes up seriatim:

The patent medicines sold to the laity are not much used by the medical profession, because there is no need of the interposition of the doctor between the dry-goods store which sells them and the patient. There are a number of patent medicines identical in character with these last, which are used by the doctor, because the makers have about exhausted the field of fools among the laity, and turned to the medical profession for fresh pastures—where they are growing fat, by the way. The composition of a medicine being unknown, the writer is unable to see any distinction between Brown's July Flower and Antipertussis, with reference to whether it should be used by the medical profession, notwithstanding that the latter is sold by agents and the trade to doctors more than to the laity.

The class which has the formula on the bottle, but a formula which no pharmacist in the land can compound to look like, or be like, the article itself, is a hard one to deal with, because it involves the testing of the truth of the label. There is a remarkable unanimity of belief among pharmacists and materia medicists, that very many—not all—have a formula which is one thing, and a statement on the label which is quite another, and a mere fraud. But this class must not be condemned too sweepingly.

The number of patent medicines—the writer prefers the good old term of his youth to the later alliteration—which publish a formula that is simply a nonsensical grouping of letters is increasing. Some mixture of well-known drugs is made, and said to be pharaphosphoenetol; and the doctor who has read of diethylsulphonidimethaline then at once lays in a supply in order to keep up with the times. At the same time he knows no more about what he is giving his patients than he would, if he prescribed Cumberland's Cough Cure. The more honest manufacturer does not stoop to this trick, but gives very scientific titles to the drugs he uses. He calls carbolic acid phenyl or phenol according to his taste in literature; he forgets that the pharmacopœia has made acetanilid a proper title, and calls it phenylacetamid—and incidentally sells it a dollar an ounce. Then he divides responsibility by giving a mixture of something like carbolic acid and boric acid the name of some honored surgeon, the formula printed in bad Greek when he has to give it at all, and tells the aspiring surgeons of the country that it is the ideal antiseptic—whether from the honored name, the Greek, or the extortionate price is not evident. If the doctor can determine what the formula means, as he should be able to do, and wants to pay the price for the name, no serious objection can arise to the use of the last class of proprietary preparations; but why the doctor does not prescribe in the

first place the ingredients, or mix them himself, as he does calomel and soda, is a question it is not necessary to answer here.

This brings us up to the last item in our classification; those combinations of which the formula is correctly given. There is no ethical reason why these combinations should not be prescribed. The objection to them in some quarters is that they are after awhile advertised to the laity through the newspapers with a consequent reduction of fees to the doctor; but this argument has nothing to do with the scientific consideration of the matter. That it is based on facts, is shown by the many advertisements in the lay papers of articles that the profession had long considered its own property. The writer believes it would conduce to a higher degree of skill in the medical profession if doctors would prescribe what they want, and let the pharmacist do the mixing, or else mix it themselves. Of course, the bugaboo of dishonest and incompetent pharmacists appears here; but the ones who cannot make the mixtures upon the written prescription of the doctor will not scruple to dispense what they please, regardless of manufacturers' names and trademarks. It should go without saying that more attention paid to the National Formulary, and less to the handsome advertising of wealthy manufacturers would add to the standing of the profession. But this last is not so great an evil as is that doctors who call themselves respectable and ethical, and who bring charges against the fellow-practitioner whose card in the paper does not read just right, use medicines of unknown composition which are nostrums without an iota of difference from the cough cures and kidney cures sold to the sick in the dry-goods stores. The advertising doctor should be read out of the profession; the doctor who uses these nostrums should be sent to keep him company; and the eminent (?) medical gentlemen who give certificates of quality to the makers of these nostrums should have their portraits placed side by side with those of our old friends, Lydia E. Pinkham, and the three dollar shoe man.

The writer does not often spend time upon such subjects; he knows he will be out of favor with the manufacturers of many proprietary preparations; he is most afraid of the charge of sensationalism. This last is the only thing worth paying attention to. This paper was written at this time and to be read before this society of prominent professional men, because of a report made to the Illinois State Pharmaceutical Association at its last meeting. This report was based upon ten thousand prescriptions actually filled in drug-stores in the regular course of business. The object of the investigation was simply to discover what drugs now in the pharmacopœia should be omitted from lack of use, and what ones added. It only incidentally brought out the fact that in 10,000 prescriptions proprietary preparations appeared 2,613 times; about 2,500 prescriptions consisted entirely of these proprietary preparations; of these 2,613 proprietary articles, 827

were classed as antiperiodics by the druggist who filled the prescriptions. That is to say, about one-fourth of the medicines prescribed within the territory of this investigation were proprietary preparations. If anyone expects to lay all the blame upon the most honorable and most abused portion of the profession, the country doctor, he needs to be told the sad truth that of the 10,000 prescriptions, 6,000 were filled in the villages of Chicago and Peoria; and the rest came from towns where the doctors give one the impression that they consider themselves city physicians. Of course, the prescriptions were taken as they ran in consecutive numbers on the files; and as stated before, the investigation was really for another object entirely, so that no selection can be charged. Medicines with secret formulas were prescribed 258 times, the list running from some much advertised in a certain class of medical journals to "Syrup of Figs." Preparations with the formulas given out by the makers, but which formulas are considered false or incomplete by most pharmacists, appeared 106 times. Preparations, the published formulas of which are chemical absurdities, appear 7 times. Of course, there may be a difference of opinion in regard to the last two divisions, and to avoid responsibility in dividing the proprietary preparations into the groups mentioned above, the writer has left all the others unclassified—some belong in the list of honestly made and honestly advertised mixtures claimed to be especially pure and skillfully combined.

The next question is, what are you going to do about it? That is respectfully referred to the various committees on ethics of the different societies, and to the State Boards of Medical Examiners.

The writer has heard but one defense for the practice of doctors prescribing certain patent medicines, and fairness demands that it be stated. It is that if they produce results, they should be used. The same argument applies exactly to every patent medicine sold in the department stores.

NORTHEAST MISSOURI MEDICAL ASSOCIATION.

This new society was organized April 1, at a meeting held in Kahoka. Its territory comprises the counties of Clark, Scotland and Schuyler, and at the next meeting, to be held in Lancaster, July 7th, other counties are expected to join. The following officers have been elected: President, J. E. Parrish, of Memphis; Vice-President, W. F. Mitchell, of Lancaster; Secretary, Frank B. Hiller, of Kahoka; Treasurer, T. P. Leedom, of Lancaster. The society will meet quarterly.

New Society.—The Western Association of Eye, Ear and Throat Surgeons was organized recently in Kansas City. Doctor A. Alt, of this city, was elected President, and the next meeting will be held here in April 1897

WRYNECK AND ITS TREATMENT.*

By ALEX C. WIENER, M.D., of Chicago, Illinois.

THE wryneck (torticollis caput) is characterized by the peculiar position of the head which is drawn toward the shoulder, the chin being turned to the opposite side at a greater or less elevation. Although clinically well differentiated from that much rarer affection, which should be readily recognized as atlanto-axoid spondylitis from the fact that the neck is bent forward rather abruptly with the face directed downward, nevertheless the two diseases are not infrequently confounded.

The torticollis position of the head may be ascribed to various affections. These affections may be divided into those which, resulting in abnormal pressure and an altered position of the disused nerves and vessels on account of pathological changes in the vicinity, such as abscesses of any organ, inflamed lymphatic glands or tumors, compel the patient to bend his head over toward the diseased side in order to obtain relief from the pressure pain, the functions of the joints and muscles remaining undisturbed; or those in which the head is pulled to one side by contracting scars as a result of burns, tubercular or syphilitic ulcers. Oculo-muscular inequality as described by Lovett and Bradford, in which no other treatment but the correcting of the existing strabismus was attempted and a habitual faulty bearing through neglect of the nurse may conclude the list of the causes of what is best named passive or mechanical torticollis.

True wryneck results from pathological changes in the locomotory apparatus of the neck—the muscles and joints—and therefore may be considered of the active or functional variety.

Exposure to cold may cause a kind of torticollis over night, resembling lumbago, which is due to an acute rheumatism of the muscles and will readily yield to energetic massage and the use of salicylate of soda and hot applications. Myositis of the sterno-cleido-mastoid may follow an acute infectious disease—typhoid fever, scarlet fever, diphtheria, meningitis—and becoming chronic may transform the muscle into a contracted fibrous string.

In making a diagnosis the possibility of syphilitic changes or sarcomatous degeneration of the sterno-cleido-mastoid should be considered, in order to avoid a fallacious therapy and prognosis.

The most common cause of caput obstipum is myogenous contraction of the sterno-cleido muscle which has developed from a preceding traumatism, either one of intra-uterine origin, as is the head pinched to one side in hard-working mothers, or one resulting from an artificial confinement, mostly in buttock presentation.

Petersen has tried in vain to refute the old Strohmeyer theory. The

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positive statement is made by Royal Whitman that wryneck of fœtal origin is always characterized by atrophy of the face and neck immediately after birth. The fact still remains, however, that cases have been observed in which a fœtal shortening of one side of the head had under confinement resulted in a large hematoma and no assymmetry of the skull and neck could be noticed, although a torticollis developed several months later. The obstetrician should always bear in mind the possibility of a hematoma after difficult labor and record the cases of hematoma which occur, in order to decide the question which still remains unsolved, viz: cicatricial contraction of the muscle should be prevented by conscientious massage treatment. The necessary treatment of chronic caput obstipum invariably consists of resection of the muscle through an incision, then the manual correction of the scoliosis of the cervical vertebræ, the wound then being sewn up with buried sutures so as to avoid a disfiguring scar. After the head has been kept in an overcorrected position for several weeks by means of a leather or plaster of Paris collar, orthopedic treatment is resorted to, which consists of exercise, massage and stimulating the antagonists with electricity.

The nervous origin of torticollis is limited to paralysis of the accessory nerve from traumatism, or compressure atrophy, or central causes, as poliomyelitis or progressive muscular atrophy.

From personal observations I must flatly deny the existence of a torticollis due to a genuine spastic irritation of the accessory nerve. The anatomical cause of this affection will be found in a chronic inflammation of the intra-vertebral joints of the upper part of the cervical column. The muscles of the neck react with painful reflex spasms just as the muscles of the leg do in inflammation of the hip, and yet no surgeon has ever thought of extirpating the ischiadic or crural nerves to cure spasms of the muscles of the leg. Of course when the sterno-cleido muscle is deprived of its nerve supply, being paralyzed, it will cease to draw the head over. It is true that with the accessory nerve we remove the most flagrant symptom of the disease; the disease itself, however, still remains. While the results of the operation are not ideal, they are still more satisfactory than those obtained from the use of apparatuses, which, being constructed for the purpose of forcing the head back into its normal position, regardless of the nature of the disease, cannot be endured by patients. It was only recently that Isidor, in *a These de Paris*, could claim the best results from an extensive resection of the accessory nerve. (By this he does not mean a cure but a decided and lasting improvement.)

To-day I am glad to be able to present to you a case of typical spastic torticollis. This has been almost completely cured within six weeks by the use of an apparatus whose object is to extend the head as a whole and to overcome the muscular spasms gradually and, above all, to separate the

anchylosed vertebral articulations and extend the contracted lateral ligaments. The apparatus allows the head limited motion and to easily follow the rapid changes of distances. In six weeks the distance between the mastoid process and coracoid-clavicular articulation has increased from 4 to 9½ inches and the excessive curvature of the cervical vertebræ to the right has almost disappeared. The apparato-therapy was combined with gymnastic massage and electric treatment in order to make lasting the corrections made by the apparatus. The joints were affected by chronic inflammation whose deposits were probably of uric acid origin.

We must, therefore, come to the conclusion, gentlemen, that in caput obstipum chronicum of muscular origin, the only effective way of curing the patient is to resect the sterno-cleido muscle and then to institute an orthopedic treatment; furthermore, that the so-called torticollis spastica is simply a reflex action of the diseased intra-vertebral joints, and that these can be cured by applying an extension apparatus, combined with massage, electric and gymnastic treatment without resecting the nerves.

CHEST DRAINAGE IN EMPYEMA.*

By J. J. BROWNSON, M. D., of Dubuque, Iowa.

Mr. President and Gentlemen of the Tri-State Medical Society:—

WHEN I was invited by the officers of your Association to read a paper at its meeting in Chicago, I felt at a loss to know just what subject to select; but remembering an incident that happened when I was quite a young practitioner, it led me to present the subject which I have the honor to talk to you about to-day.

It was many years ago when one day my dear friend and preceptor, the late Dr. G. M. Staples, asked me to go and give chloroform for him in a certain case. The doctor told me that the patient had had some chest trouble, and that he wished to make a thorough examination. When we arrived at the house we found a man about thirty years of age, large and stout looking, had cough, breathing slightly accelerated. During the afternoons he complained of feeling chilly, followed by slight fever and sweating. I noticed a peculiar color of the skin, not unlike what we would call a "bilious look."

By request of the physician I made an examination of his chest, but there was nothing that I could find out of the ordinary. Imagine my surprise when the doctor said: "Give him a little chloroform, I think I will put in a tube," and in a few minutes later to see the pus rolling out of the thoracic cavity. He then showed me the extent of the dullness and œdema, and also pointed to the right side of the sternum where the heart

*Read by title before the Tri-State Medical Society, at Chicago, April 8, 1896.

beat was located, owing to its displacement by the left-sided effusion. Of course, I then became an enthusiast on empyema, and have been so ever since.

It chanced that I had on hand at this time a little boy who had been sick for about four weeks, and although he complained of nothing but fever and "pain in his stomach," medicine seemed to have no effect on him. After seeing the previously mentioned case, it dawned upon me that he might have an effusion in the chest, so I hastened to the house to make an examination, and there, sure enough, was the dullness, œdema and slight bulging on the left side. Summoning one of my young medical friends, who, on his arrival, administered an anæsthetic, I introduced the needle of the aspirator, and sure enough pus was found; the needle was withdrawn and a tube put in the chest, and about a pint of pus drained away. This was my first operation for empyema, and in due form our little patient made a good recovery.

Since that time, in a moderate surgical and consultation practice, I have seen quite a number of cases of effusion in the chest, and to some of the points picked up in the recognition and treatment of this condition, I will, with your permission, direct your attention.

It would be needless to take up your time in dwelling upon the history of empyema, which dates from the time of Hippocrates, or to discuss its various causes so familiar to you all; but rather to proceed at once to consider the methods of determining in chest disease whether the cavity of the thorax contains fluid. Is this fluid pus? If so, what is the easiest and best means for its successful treatment?

The history of the case may serve to start us on the right track, as we would expect to find such a condition following an acute affection of the chest; but even here there are so many diseases whose course and clinical pictures are so similar that, in many cases, even the most expert are sometimes baffled.

The various phases in pneumonia, pleurisy, pneumothorax, pericarditis, exhibit such like conditions, and where pus exists with pneumothorax as in pyopneumothorax, I know of no condition where the perplexities are so great and where so much care and study is required to make a diagnosis.

As to symptoms, the most trustworthy in my experience is where hectic phenomena follow an acute affection of the chest, a continuous accelerated pulse, breathing rapid and restricted; temperature ranges from 100° to 102°. The patient, as it were, does not seem to get well, and medicines do not make any impression or give relief. If seen in consultation, the doctor will almost always say: "The patient's system does not respond to treatment." Such a case in the hands of the average practitioner will almost always be a surgical one.

After all, our main reliance must be on the physical signs, for by this means we must satisfy ourselves that an effusion exists before we can undertake mechanical means to relieve it. Here again we will find many puzzling problems to solve. In a case following the history and symptoms previously given, we find, on inspection of the chest, a bulging on one side, extreme dullness ("wooden chest"); the side does not expand like the sound one; there may be bulging between the ribs. This, in my experience, is rare. By succussion, if the effusion be fluid, it may be heard in the pleural cavity. One of my friends puts much stress on mensuration, but I

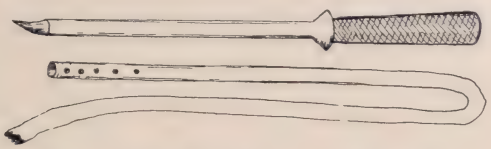

FIG. I. Trocar and Canula. Rubber Tube.

must confess that I have not used it much. It must not be forgotten that one will often drop onto the fact that an effusion exists on the left side by finding the heart displaced to the right of the sternum.

The signs in which I place the most reliance, however, in addition to dullness and immobility of the affected side, are *œdema* and *tenderness*. Given a case with the foregoing history, symptoms and physical signs, we proceed to clear up the diagnosis by exploratory aspiration with a sterilized needle. The character of the effusion, if any, will then be determined; if it is pus, a tube should be put in at once and thorough drainage of the pleural cavity maintained.

FIG. II. Inserting Tube Through Canula.

What is the easiest, and at the same time, safest method of successful chest drainage? I must say that siphon drainage in my hands has given none but the best results. It is easy of performance. It drains slowly and thoroughly from the bottom of the pleural cavity. The simple method by which irrigation of the chest can be done, if necessary, the length of the tube precluding any danger of its retracting into the chest—all tend to commend this method for general adoption, rather than the more difficult and complicated processes often recommended.

I prefer to enter the chest at the point of the most dullness, and over the site of the œdema and the greatest tenderness on pressure, although, of course, the location of the liver on the right side and the heart on the left side must be borne in mind. In the two cases of spontaneous rupture outside of purulent effusion which I have seen, both were at the sixth interspace just forward of the axillary line. In general terms I should say that the above principles should govern, care being taken not to go below the eighth rib on the right side, or the ninth on the left side, unless there should be some special indication.

The mode of procedure is as follows: A trocar, with a canula of about one-sixth to one-fourth inch diameter; a piece of rubber tubing about two feet long of a size that passes through the canula easily, are needed; the instruments, tube and field of operation are now sterilized. It is generally best to give chloroform in these cases, and when the patient is sufficiently anæsthetized a small incision is made in the skin over the intercostal space. The trocar and canula is then pushed in. It is best to enter the

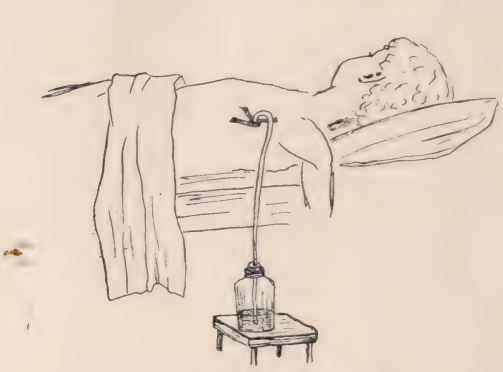

FIG. III. Siphon Tube in Situ.

FIG. IV. Tube Shortened, Receptacle carried in Vest Pocket.

point of the instrument a little upward at first, then downward over the top of the lower rib. If this is done, and the flat side of the trocar directed upward there will be very little danger of wounding the intercostal artery which runs along the lower border of the rib. The trocar is then removed and the tubing passed through the canula to the bottom of the pleural cavity; the flow of pus can now be regulated through the tube at pleasure. It is best to put the end of the tube in a bottle of carbolized water and let the matter siphon out; of course, if the patient should feel faint or any untoward symptoms appear, the flow may be stopped for a while. I have never seen any emergency in letting the pus drain at once. Several strips of adhesive plaster are now placed around the tube and fastened to the chest, a gauze dressing put on, and the patient allowed to rest comfortably in bed.

It will not be necessary to irrigate the cavity unless the tube gets clogged or the temperature should rise. If it is found proper to do this, a

small hard rubber syringe is used to exhaust the air from the tube and the end is placed in the irrigating fluid. By raising the vessel the antiseptic runs in, and all that is necessary to do is to lower it and the fluid runs out. By this method we introduce no air, and we can see at a glance whether all the irrigating fluid comes away.

As the case progresses and the patient becomes convalescent he may be allowed to get up and go around. The tube may be shortened and placed in a small bottle, which he may carry in his pocket. The tube must be left in as long as the discharge is purulent, and should be pulled out a short distance occasionally, as healing takes place from the bottom. In this way the operator, by previous measurement, knows just how much tube is in the chest.

We can always tell whether things are doing well or not by the range of temperature, for "as soon as drainage is made, the temperature falls." If anything interferes with thorough drainage, the "temperature will rise." This is the most important of all surgical axioms and is the principle upon which rests the foundation of the whole of surgical science.

To further illustrate the practical working of siphon drainage in empyema, allow me to present a few clinical examples:

CASE I. Roy G., aged 6 years; taken with pain in the chest, fever, cough. The usual remedies were ordered; he improved somewhat, but at the end of two weeks resolution did not take place, but he commenced to have hectic symptoms. Physical examination developed dullness and marked bulging on the left side; there was œdema, and the point of most tenderness was over the sixth interspace in the axillary line. Aspiration at this point showed pus. The skin was incised and siphon drainage used, and about a pint of matter drained away. The temperature dropped to normal and at the end of two weeks the tube was shortened, and he was allowed to attend a picnic some miles distant. About the ninth week the tube was removed and he has since been well.

CASE II. C. K., aged 40 years; first sick with chills and pain in the left side; had fever and cough, and after several days the breathing became very much embarrassed. The heart was found displaced to the right of the sternum, and dullness and œdema were present. Aspiration was performed on the left side in the seventh interspace, from which pus exuded. Siphon drainage was then made, and the matter allowed to drain away. Patient made a good recovery, and the tube was removed in two months.

CASE III. W. S., aged 4 years; had measles. In the usual time the rash disappeared, but the cough persisted, and the dyspnœa became so great that he could not lie down. Physical examination of the chest revealed dullness and bulging of the whole right side. Chloroform was given; aspiration withdrew pus; siphon drainage was made and the effusion allowed to drain away. This gave him immediate relief, and in less

than a week he was around the house with the tube in a bottle and he passed on to a good recovery.

CASE IV. G. H., aged 9 years. Attack commenced with symptoms of pleuro-pneumonia, the patient continued to get worse from time to time. Nine weeks after she was taken sick dullness developed over the right side and she had a dry and incessant cough, which annoyed her every minute. Dyspnœa was well marked, and there was considerable œdema and tenderness over the whole area. A diagnosis of empyema was made, which subsequent aspiration confirmed. Siphon drainage was then done. Everything went well until the end of the first week, when, while washing out the cavity, the child took a fainting and coughing spell, from which she was with difficulty revived. The irrigation was then stopped, and with this exception she did well. The tube was removed in nineteen weeks.

CASE V. J. S., resident of Earlville, Iowa, 22 years of age, presented himself with a history of having had two months previously an attack of la grippe. He did not recover from this, but developed hectic symptoms and sustained a considerable loss of weight. He had a cough with profuse purulent expectoration and a diagnosis of tuberculosis had been made by two physicians. On physical examination there was found dullness, œdema and marked tenderness on the right side. These appearances, together with the peculiar coppery or bilious color of the skin, led to a determination of empyema with rupture into the bronchi. Subsequent aspiration confirmed this opinion, and incision in the seventh interspace on the right side was made and siphon drainage put in. The young man was very much relieved by this procedure and eventually recovered.

CASE VI. P. S., age 9 years. Sickness began with fever, cough and rapid breathing. His appetite remained good, but the pulse and breathing increased. Physical signs showed resonance on both sides, except that there was slight bulging on the right side; there was no evidence indicating effusion. Aspiration was, however, performed in the seventh interspace on the right side, but showed nothing but blood. The symptoms continued to get worse, when, after he had been sick about nine weeks, a small spot of dullness, with œdema and extreme tenderness, developed in the interspace just below the left scapula. Aspiration at this point found pus, and the drainage tube was now put in. About four ounces of matter drained away. The tube was left in about a week, when there having been no discharge since the first day, and the symptoms having abated, it was thought best to remove it. The little boy made an uneventful recovery and is now thoroughly well.

In the previously cited cases I have endeavored to give only an example of those which present different phases. I now wish to give an illustration of how nature attempts to cure empyema by spontaneous opening externally:

CASE VII. L. P., aged 29 years, took sick in the country with chest symptoms, lung fever being diagnosed by his physician. He continued very ill for about four weeks when pus broke out in two places on the right side of the thorax. Following this he made a slow recovery, but the discharge did not stop, and for this condition he came to the city some six months later. There were two sinuses in the sixth interspace on the right side, which led into the chest. Drainage was made in the seventh space, the tube passing to the bottom of the pleural cavity. The sinuses promptly closed and at the end of four weeks the tube was removed and he has since been well.

CASE VIII. A. G., aged 60 years. Had pleurisy six months previously; has had cough and purulent expectoration. About three months ago a small sinus appeared over the sixth rib, and on introduction of a probe necrosed bone was felt. A diagnosis of necrosis of the rib was made and exsection of same advised. At the operation the necrosed rib was removed, and underneath it was a thickened condition of the pleura, with a large pocket of pus. This was certainly nothing more than an old empyema, and in its attempt at evacuation caused necrosis of the rib. Thorough drainage of the cavity was made and the man went on to a good recovery.

I might go on and give descriptions of numerous cases, but my paper has now already taken up too much space, and I merely wish to say in conclusion that I believe many valuable lives are lost by a failure to recognize and properly treat this disease. If I have succeeded in calling attention to the fact that when a physician has a case of persistent symptoms following an acute affection of the chest, together with the signs of dullness, œdema and tenderness, he should not hesitate to use an aspirator to clear up the diagnosis, and if you will only overlook any little omissions or irregularities in this paper, for I have written it off-hand so as to bring you all near the bed side, I shall feel amply repaid and truly thankful for the courtesies extended in allowing me to present one of the most interesting and life-saving operations in the whole domain of surgery.

A Splendid Institution.—The Cincinnati Sanitarium, of which Doctor Orpheus Evarts is Superintendent, has recently issued an interesting report showing the excellent work which is there being done for the relief of suffering humanity. There is no better hospital in the country for the treatment of mental and nervous disorders.

Time to Crawl.—The little job printer of St. Joe, who owns the *Medical Herald* and *Fortnightly*, and sends scurrilous letters to persons whom he does not know, hoping thus to injure a member of the profession, will do well to hide his head in the earth and pull the hole in after him. For particulars see the *Southern Medical Record*.

ON TWO FORMS OF RINGWORM.

By A. H. OHMANN-DUMESNIL.

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

RINGWORM, or tinea tricophytina is not as common a disease in this country as it is in Europe, and this is, no doubt, largely due to the fact that the population is neither so crowded or huddled together as abroad. It is more especially in the large foreign capitals that so many cases are observed, and the clinics teem with patients seeking relief for the trouble. In the United States cases occur in very small numbers and come so seldom to clinics, that whilst the name is very familiar the disease itself seems to be almost a rarity in the experience of physicians, a circumstance which leads many to call every roundish eruption, which may or may not itch, ringworm and too often prescribe sulphur ointment for it. The importance of recognizing some particular forms of the trouble will be readily appreciated when the fact is recalled to mind that they not only lead to epidemics which develop in a very short space of time, but are singularly refractory to treatment in some cases, and always stubborn to the action of curative measures in all cases. Three principal forms of ringworm, as it most ordinarily occurs, are recognized. Tinea capitis, tinea corporis, and tinea barbæ each one possessing markedly distinct clinical features. Tinea barbæ will not be considered in this article as it more properly forms one of a group of similar cutaneous affections attacking the bearded face. A modification of tinea corporis is tinea cruris or eczema marginatum, which is no eczema at all and which will be described later on in this article. A fact which must not be forgotten is that the disease is not confined to man, but may be found in all domestic animals, and there are those who contend that all cases of ringworm are of animal origin and are transferred to human beings and by them to one another.

Tinea corporis or ringworm of the body is the most common form of the ringworms. As its name implies it occurs on the glabrous or smooth portions of the integument, never invading the hairy parts. It is superficial although the parasite is inclined to luxuriate between layers of the outermost portion of the stratum corneum. It is seen either in a few isolated patches or it may occur in numbers involving large areas such as the entire back. In such cases it is not an unusual thing for the lesions to coalesce and form comparatively large patches. This form of tinea is more or less multiform, the lesions assuming the appearances of macules, vesicles,

papules or scales, it being a rare occurrence for pustules to occur. The outlines of the lesions are more or less circular and this is manifest from the very beginning of the trouble. The mode of evolution is from a very small macule of a reddish tinge and not larger than a pin's head. This gradually spreads peripherally until it attains the size of a silver dime about which time it will be noticed that the centre begins to clear up and at the border a slight desquamation of very thin scales declares itself. As it continues to enlarge, the clearing up keeps pace with the growth and when the disease has existed some time, it presents an appearance like that shown in Figure 1. The lesions are usually somewhat elevated above the general surface, although in some cases it is scarcely perceptible. In the papular or vesicular forms these lesions form at the outer border which presents the appearance of a well formed ring, from which circumstance the trouble has derived its common name.

Tinea cruris, or eczema marginatum, is a peculiar form of ringworm which limits itself to one locality of the body and is that concerning which more mistakes are made than any other. It always shows itself upon the internal surface of the thighs high up, and when fully developed its outer margin has a rounded form. It is symmetrical, both thighs being invaded by similar patches. The border generally is invaded by miliary papules or vesicles or both. If it occur in the male the patches usually stop at the line of the scrotal junction. Occasionally, however, the scrotum itself is involved. A peculiarity in connection with this form is the fact that there is marked moisture present, and this not only contributes to make the fungus luxuriate more abundantly, but also causes the red angry appearance which is seen. This is merely a preliminary step to an inflammatory reaction of an eczematous nature which is apt to set in. An analogous condition to this one is sometimes seen in the axilla, constituting so-called tinea axillarius. In both of these forms there is a marked stubbornness to treatment not so evident in the ordinary forms of tinea corporis, and the itching which is very slight in tinea corporis, is intense in eczema marginatum. It is sometimes observed that, after the process has extended a certain distance, it commences afresh at its original starting point and thus two sharply defined lines, concentric to each other, will be manifest. This is also a circumstance which is far from rare in ringworm of the body, and, in some forms of the disease, such as Tokelau ringworm, a number of concentric rings always occur.

Tinea capitis or ringworm of the head is a form of the disease which rarely attacks adults, being usually confined to children of both sexes and not necessarily to the poor but in those whose surroundings are of the best, as well. It is a most serious affection in some respects, as it is so highly contagious and epidemics in foundling and orphan asylums are far from uncommon. In such cases it entails an immense amount of labor

to thoroughly and successfully stamp out the disease. In Paris the trouble is so prevalent that the authorities have a school established for children with ringworm, in order that it may not be communicated to those who are uncontaminated. Of course, those affected with tinea favosa are included in this class and all are required to present themselves daily at the clinic

FIG. II. Tinea Capitis.

for treatment. In London and other large European centers, tinea capitis is quite prevalent and it seems to be an impossibility to thoroughly stamp out the disease. It eventually recovers spontaneously but it too frequently results in permanent bald patches of the scalp due to scars of a superficial

nature, or more marked ones such as follow Kerion. The question of ringworm of the head in school children has not only engaged the most serious attention of physicians abroad and in this country, but it has formed quite an important item in the measures which have engaged the consideration of legislators on the Continent in their endeavors to formulate laws sufficiently stringent to mitigate the evil without being oppressive on the people they are intended to benefit.

Tinea capitis or ringworm of the head is a form of the disease which can be easily recognized by observing the symptoms which are presented. One or more circumscribed patches which are covered with broken off, stubby hairs, in many instances scarcely projecting above the skin occur upon the scalp. The hairs have a dull dark-lustre appearance and are exceedingly brittle. Viewed at a short distance the scalp presents a more or less moth eaten appearance as shown in Figure 2. The hair is sometimes so short that the patches simulate alopecia areata very closely. But a close examination will reveal the very short stumps of the affected hairs slightly projecting above the general level of the scalp. In addition to this the scalp proper presents evidences of being affected by the process. More or less scaling manifests itself and in cases of a more advanced character, crusts exist, or, as sometimes happens, vesicles which may break down after having become transformed into pustules. It is in such cases that continued irritation brings about the formation of a phlegmonous or suppurative process which dips down into the follicles of the hairs and leads to the formation of a scar. There is no limit to the number of patches which may exist and cases occasionally occur in which the patches are separated by very narrow lines of hairs which, whilst apparently healthy, are also invaded by the parasite. One factor which contributes to the dissemination of the disease over the scalp is the scratching which is necessitated by the intense itching which is present. Not only does this increase the number of patches but it frequently brings about the development of ringworm of the nails (tinea unguium.) In neglected cases of tinea capitis or in such as have been improperly treated an active inflammation of a circumscribed portion, having a peculiar appearance, may arise. This is *tinea Kerion* or *Kerion Celsi* which is tumor-like, reddish and baggy in appearance. Numerous distended follicles stud its surface and from these there exudes a thick, viscid, foul smelling fluid. It is always followed by baldness of the part which it has affected.

The essential cause of ringworm is an epiphytic vegetable parasite in the case of tinea corporis and hypophytic in tinea capitis. The parasite is one rather easy to recognize; and, for this reason, no case of tinea should ever remain undiagnosed. With the use of the microscope, a clear diagnosis may be made in a few minutes, and not only will this be a certainty, but the proper measures to follow may be instituted immediately, and

thereby much valuable time saved. The method is an exceedingly simple one; some scales or a few hairs are placed on a slip, and a drop of solution of caustic potassa placed on the specimen. This clears it up and renders the parasite more distinct. A one-fifth objective will show it well, and for ordinary purposes of diagnosis, it is all that is necessary. The tricophyton consists of mycelia and spores as shown in Figure 3. The spores are frequently arranged in chains and in tinea capitis may form the only portion of the parasite apparent. The mycelium is long and tenuous, and has numerous branches. The mycelia are for the most part sporophores. In tinea capitis there is a general infiltration of the hair, and of the follicle by spores. According to Sabourand* it is the *megalosporon endothrix* which is the active parasite in this form, whereas the *microsporon tenuissimum* of Grüby is the one which produces many of the forms of tinea corporis. Be

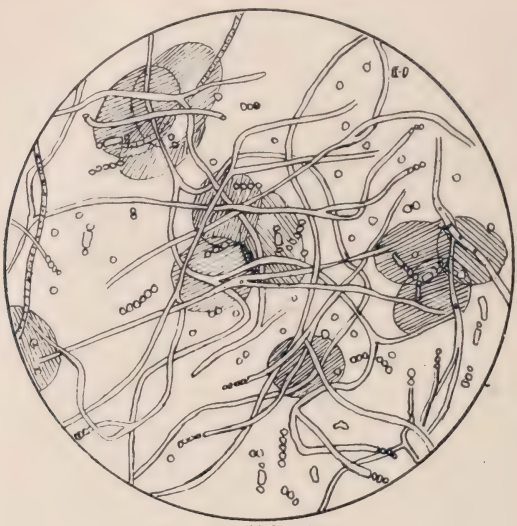

FIG. III. Tricophyton.

this as it may, it is only by the productions of pure cultures of the various parasites that the finer morphological distinctions can be made, and, as far as rapid and practical examinations are concerned, that given above is all-sufficient for the purposes of the practitioner. It may be added, that with good illumination, the mycelia and spores give a very faint greenish tinge of a translucent character.

The treatment of all forms of ringworm may be divided into various forms but each one has a three-fold object in view. (1) The prevention of the dissemination of the disease; (2) the limitation of auto-injection; and, (3) the destruction of the parasite. Of these the last is, of course, the most important, as upon it depends the other two. So far as the prevention of dissemination is concerned, it is necessary that contact with others should

*R. Sabourand, Les Trichophyties Humaines, 1894.

be avoided. Articles of clothing, bedding, combs, brushes, etc., should not be used by others. The individual should be cautioned against scratching as this tends to produce auto-infection and also aids in conferring the disease upon others. All these little details must be carefully looked after, and all these things warned against which can in any way contribute either to the dissemination of the disease or to an increase of area involved by the disease.

So far as the curative treatment is concerned it is a very simple matter as far as tinea corporis is concerned. It has been asserted by a writer that a strong solution of common salt will accomplish the purpose, but it would hardly be judicious to trust to this. I have had good results follow the application of a one to five hundred bichloride ointment whose base is cold cream. The following is excellent and especially applicable to infants:

℞ Losophan..... ℥j
Axungiæ porcis..... ℥j
M
Sig. Apply thoroughly twice daily.

If a solution be preferred, a very cleanly and effective one is composed of an aqueous solution of boracic acid. This, however, is only applicable to the more superficial forms of ringworm of the body.

The treatment of tinea capitis is a much more complicated matter. In the first place, thorough epilation should be practiced, not only of the affected patches, but a zone from a quarter to three-eighths of an inch in width should also be epilated around each patch. After this epilation has been done, the necessary application should be thoroughly rubbed in. It must not be forgotten to renew the epilation directly the hairs emerge again. Cataphoresis, by means of a galvanic current may be practiced, using a one to one thousand solution of bichloride with which to saturate the anodal sponge. Many paraticides have been recommended, but it must always be borne in mind that the prerequisite is to procure penetration of the remedy into the hair follicles. An application of great utility, but which must be carefully applied, is the following:

℞ Chrysarobini..... ℥j
Lanolini..... ℥j
M
Sig. Apply once daily.

It will occasionally be found that all these and similar methods will fail. In such cases an artificial kerion is produced by the application of croton oil. The inflammation which results destroys the parasite; but, unfortunately, often results in a restriction of the hair papillæ and consequent permanent alopecia.

FORMULAE.

Hyperidrosis.—

℞ Balsam Peruvian ..... 1 grm.
Formic acid ..... 5 grms.
Chloral hydrate ..... 5 grms.
Alcohol ..... 100 grms.
Misce.

—HEUSNER, *Amer. Med. & Surg. Bulletin.*

Infantile Eczema.—

℞ Carbolic acid ..... 10 grs.
Acetanilid ..... 30 grs.
Petrolatum ..... 1 oz.
Misce.

—WELLS, *Phila. Polyclinic.*

Palatable Castor Oil.—A pleasant combination is obtained as follows:

℞ Pure saccharine ..... ℥ss.
Alcohol ..... ℥ss.
Castor oil q. s. ad ..... Oj.
Oil of peppermint ..... gtt. 5.

Add saccharine to the alcohol and heat until the former is dissolved, then add to oil and shake well; finally add oil of peppermint.—EDEL, *Spatula.*

A Non-Irritating Excipient for Ophthalmic Ointments.—It is essential to employ perfectly bland bases in prescribing for disorders of the eyelids. Vaselin has been found irritant, producing a slight pink congestion of the conjunctiva, if the conjunctiva was not previously involved, or intensifying existing inflammation.

Unna has suggested lanoline combinations, of which the following is a modification:

℞ Lanolini (Liebreich) ..... ℥iii
Olei amygdalæ
Aquæ de-tillatæ ..... aa ℥ ss
Misce.

If smeared thinly on the eyelids this occasions no unpleasantness, and may be of service in preventing the gluing of the lids by secretions.

A few grains (about two grains) of boric acid will prevent rancidity. In eczema of the lids this ointment carries well the yellow oxide of mercury.

Patients contrast this ointment with others used by commenting upon the grateful sensation of coolness produced, without a trace of smarting or irritation. Its curative effect should be as much as of any base ordinarily employed, and the mere fact of comfort should commend its use.—JAMIESON. —*British Journal of Dermatology, April, 1896*

Treatment of Migraine.—In the *Gazette Medica di Roma*, the following formula is recommended in the treatment of migraine:

℞ Citrate caffeine ..... gr. xx.
Phenacetine ..... gr. xxx.
White sugar ..... gr. xv.
Sufficient for ten capsules.

One every three to four hours during the period of the attack.—*Indian Lancet.*

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UNADULTERATED CHEEK.

THE TRI-STATE MEDICAL JOURNAL has received the following modest request:

TRI-STATE MEDICAL JOURNAL:

Dear Sir:—Please insert copy attached as "Reading Notice" free and oblige yours truly,

G. W. FLAVELL & BRO, per M. S.

The copy attached is a flattering notice of the goods made and sold by Flavell & Bro. This firm has never advertised with us. Is it any wonder that Philadelphia lost the *Medical News?*

NATIONAL ASSOCIATION OF RAILWAY SURGEONS.

Saint Louis recently had the honor to entertain the National Association of Railway Surgeons during a three days' meeting. Five hundred members were in attendance; important papers were read; valuable discussions were elicited; good feeling prevailed; and everybody was pleased with the meeting. The papers and discussions will appear in the *Railway Surgeon*, the official organ of the Society. The editors are Doctors Outten and Westcott.

Some years ago there was a row in the Association; some discontented spirits formed the American Academy of Railway Surgeons and the downfall of the National Association was predicted. Such prophesies were idle vaporings. The National has come to stay.

THE NEED OF MODERN HOSPITALS.

If there be any one thing above another which the splendid City of Saint Louis needs it is modern hospitals. Any unprejudiced person who has investigated the subject will conclude that in the matter of hospitals Saint Louis is twenty years behind the times. Of the city institutions not one is a credit to us. All are absolutely dirty or are devoid of facilities for aseptic work. We have previously called attention to the condition of the City Hospital, and we are glad to be able to say that in a few weeks work will be commenced upon the new building. We hope that the Hospital Commission will be composed of gentlemen without axes to grind and that no more favors will be shown to one medical faction than to another. In a matter of such importance to the patients, all medical politicians and schemers should be turned down. Doctor Sutter deserves much credit for impressing upon the authorities the importance of immediate action.

DANGERS OF ANTITOXIN.

The recent publication of one case of death and one of profound depression from the use of diphtheria antitoxin should cause every physician who uses this remedy to exercise the greatest care in selecting his cases. Sudden death has followed the application of many agents, but in the case of antitoxin there seems to have been a direct connection between cause and effect. In one instance a prophylactic dose of Behring's serum was given to a sleeping child who seemed to be in perfect health, but in five minutes he was dead. In the other case the lady of the house was fatigued from nursing her husband and child who passed successfully through diphtheria under the antitoxin treatment. "The woman was apparently in good health, but was fatigued from broken rest. As she was all that the sick ones had to depend upon for a nurse, the doctor advised her to take a prophylactic dose of antitoxin and she consented. As he did not have the prophylactic preparation with him, Dr. Gratiot used No. 1, green label, 600 units strength, Behring's Op. No. 253. In a few minutes after receiving the injection over the right breast, with every aseptic precaution, the woman complained of feeling faint, her pulse went up to a hundred and was almost imperceptible at the wrist, she became very pale, her feet and her hands were cold, her breathing was hurried and shallow, her pupils were dilated, and her face was covered with a cold perspiration. The doctor laid her down with her head low and gave her stimulants. It was six hours before she rallied so that she could sit up, and twenty-four hours before she felt herself again." Dr. Gratiot briefly mentions another case in which he noticed similar symptoms, but not so severe, from the use of a prophylactic dose of antitoxin in a child nine years old.

Physicians should not fail to report all cases in which antitoxin fails to control the disease, or acts positively as a depressant, for it will be by the

accumulation of a large number of clinical reports that the exact value of the antitoxin therapy will be established. Possibly the preparations of antitoxin used in the cases reported above had undergone a change. At any rate, the whole matter should be carefully investigated.

HOW SPECIAL SKILL IS ADVERTISED IN THE NEWSPAPERS.

Any fool can get himself talked about by the newspapers. Moreover he can get his picture in the paper. It requires a wise man to keep out of print. Recently the *Medical Record* has published an editorial which shows how special skill is advertised in the newspapers. It says:

"The true inwardness of the prevalent professional advertising in newspapers is so apparent to every ordinary student of human nature that none of the usual excuses are of any avail. The oft-repeated explanation that it is impossible to prevent it is very properly received with the smile that adjusts a strained courtesy with an obvious untruth. While it may appear to the offender as the only means of prying his conscience to a proper level of rectitude, it nevertheless leaves an ugly crack in his general character. The fact is that in estimating the evolutionary process which from a newspaper point of view make certain men the most famous discoverers and the most successful operators of their class, we are necessarily forced to consider the controlling influences of the weaker rather than the modest incentives of the stronger sides of human nature. These conditions are so well understood that every man whose operation or whose method of treatment of disease is figured and described is very properly open to the suspicion of having met the reporter more than half way in an apparently laudable ambition of enlightening the public. With every disposition to be reasonably liberal in the interpretation of motives, with every willingness to admit that there are always exceptions to every rule, that there are not a few medical men whose opinions on general questions affecting public health are eagerly sought by the daily press, that there exists the usual amount of nonsense concerning the more absolute and more literal interpretation of ethical rules, we on the other hand fully believe that the burden of explanation of every newspaper report of a medical man's personal exploits rests entirely and solely with the party thus advertised and thus directly implicated. We speak advisedly on this point, and can, if need be, prove our position by very direct testimony. It is an insult to ordinary intelligence to suppose that a detailed account of a surgical operation can be made by any newspaper reporter who, by the merest chance, may have forced his unwelcome presence into a hospital *clinique*. The newspaper man, bright as he may be, is never sufficiently educated in his anatomy and is never able to give a scientifically accurate and detailed account of the surgical technique that necessarily belongs to the proper performance of the most ordinary operation. There is only one man who can do this satisfactorily, and he is the operator himself. More than this, he, in the great majority of cases, does give it, whether he is willing to admit doing so or not. Too much credit cannot be given to the enterprise of the daily press, but every sensible medical man knows its limit in regard to the possibility of accommodating the ordinary every-day knowledge of affairs with the carefully written technical accounts of the latest 'the most wonderful and most dangerous

operation.' The usual method of such reports is to describe the procedure in necessary detail, to illustrate the operation by actual photographs, and at the end make it appear that the operator was unwilling to be interviewed, was annoyed at the publicity of the report, and with transparent modesty was more than sorry that his 'humble efforts to advance his glorious art' should in such an unseemly way be heralded by the press. This is done every day with the traditional stupidity of the ostrich which, although hiding its head, leaves the less desirable parts of the 'body better exposed to view and more open to attack.'

The real motive for professional advertising is always self-interest. Backing all attempts in that line is the desire to make special bids for business. It is in imitation of the quack who aims to be the only one who may be skilled in the treatment of a given case. The ego is the pivotal point around which all other minor cosiderations turn. We in this way hear so frequently of the special operations that cannot be performed by any one but the subject of the report, and the cures for consumption, cancer, eye strain, and hydrophobia which are beyond possible imitation by others of the profession. There is every difference between the man who speaks for himself and the one who is content to voice the opinion of his profession as a body concerning matters of public health and public safety. In the latter instance he is a mere exponent of general and well-recognized professional opinions, his individuality is entirely lost in the cause he represents, and his only desire, the laudable one to reflect due credit upon his fellow-workers. The moment this principle is lost sight of, his real motives have but one interpretation and his ostensible excuses have but one construction."

All this leads us to remark that Saint Louis is well provided with newspaper doctors. Of course they belong to the Saint Louis Medical Society and uphold the Code. Of course they damn any young man who follows their example, or, on the other hand, criticises their action. Of course they are the leaders, often making alleged discoveries which, too often, are stolen bodily from foreign literature. Most of these people are either surgeons or neurologists. Few of them are general practitioners. Almost none are oculists. Two or three are of such doubtful characteristics that they must be classed as "universal specialists." As to nationality, we are sorry to say that some are Americans; more, as naturally is expected, are Jews; a few are Germans. The commendable desire to "boom our medical college" often leads to the startling newspaper accounts. Gentlemen, let us be honest. If it be the will of the majority that the gates be opened widely, let us renounce the Code and come out in our true colors. Let us not denounce our neighbor for doing that which we have done ourselves. Give us a fair field and no favors.

THANKS, GENTLEMEN!

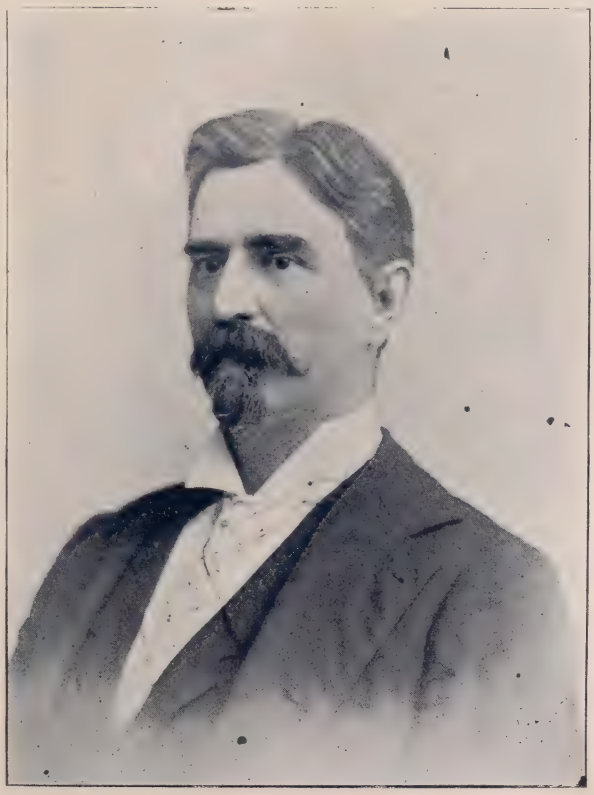
We wish to make public acknowledgment of the many kind words which have been showered upon this publication because of its stand in the matter of newspaper advertising. We have no personal grudge against Doctors Tuholske and Bremer, however severely we may criticise their

action in appearing in the daily press. The time has come when the Saint Louis Medical Society must do one of two things: either disband, or cleanse itself. There can be no half-way position. At present it is a disgrace to American medicine, the laughing stock of our Eastern brethren, a thing odious in the sight of the doctors of the West. Yet it contains much that is good. A few bad men can spoil the reputation of any organization.

Of the two alternatives mentioned above, it is safe to say that the latter will be chosen. A great advance was made when reporters were excluded. The next action should be the expulsion of several newspaper doctors. The Society should act without fear or favor. Heine Marks had to take his medicine. To our mind the Society contains several men more worthy of expulsion than Doctor Marks. To permit Doctors Tuholske and Bremer to remain within the Saint Louis Medical Society will be to set a premium upon hypocrisy and to place an example before the younger generation of doctors which will be disastrous to them and to the entire profession. Either the Code of Medical Ethics is binding, or it is not. Which is it?

MISSOURI STATE MEDICAL SOCIETY.

The State Society will meet at Sedalia, May 19, 20 and 21. A number of prominent members of the profession have been invited from Chicago and New York City. Great interest is being aroused all over the State, and present indications show that the coming meeting will be an important one in every respect. Since the Sedalianites determined to capture the State House they have given great attention to all visitors, and no doubt will show the usual courtesies to the doctors.



DR. C. LESTER HALL, President.

OAK LAWN RETREAT.

The attention of our readers is respectfully called to the Oak Lawn Retreat, a modern home for the care and comfort of the insane. The best ideas of modern science have been utilized in the construction and equipment of this institution. The city of Jacksonville, Illinois, is a charming place, and no better treatment can be obtained anywhere than there. The superintendent of Oak Lawn Retreat is too well known to the profession to need any formal introduction.

ANOTHER WAIL.

The following appeared in a recent issue of one of our exchanges:

The Medical Society as an Advertising Medium.—The most recent fad in Iowa Societies is the invitation to members of the profession of other States to come among us and occupy the time of the meetings by reading papers and holding clinics, for the purpose of enlightening the ignorant Iowa profession. These gentlemen have been engaged in philanthropic work all their lives, are "like Cæsar's wife," and are not suspected of any baser motives.

So ingrained is this unselfishness on their part that they do not hesitate to demand a certain class of clinical cases, embracing everything in their line. This has occurred more than once to the profession of Des Moines during the last three years. In our estimation the officers of the different societies are overdoing this matter. Only recently the writer attended a meeting in this State where one-third of those present were from a single city in an adjoining State, all able and intelligent gentlemen, of course, and, being such, did about all the talking. This may all be as it should be, but if similar courtesies have been extended to the Iowa profession by societies in other States, it has not come to the knowledge of the writer. Is it because we have no able men in the Iowa profession? Or do the members of the profession of other States prefer to honor themselves and object to acting as recruiting agents for the profession of other cities? We do not believe that Iowa is short on ability. We have men among us who are the peers of any of these gentlemen who have been among us so frequently, and who have found it so profitable. If we continue to lionize our distant brethren and send them our patients, we ought not to object when our people measure us by our own standard. It will not do to say that the people act thus on account of a lack of information, but rather that they are too well informed, and that their informants are the profession itself. Indeed, it is difficult to see how they could have a better source of information.

The writer is not a pessimist but an optimist, one whose business is satisfactory, but he believes that the time has arrived when the profession of this State can afford to give this matter serious attention and decide whether or not the society meetings are really beneficial to the profession at large, or whether they are not valuable advertising mediums for non-resident physicians, surgeons and specialists."

The above sounds like a howl emitted by a Des Moines gentleman who consults with irregulars. The same issue contains this notice:

"Dr. Baldy, of Philadelphia, was an honorary guest of the society On Thursday morning he held a clinic at Cottage Hospital, doing an abdominal hysterectomy and some minor operations."

In another part of the same journal we note this:

"Dr. Lewis Schooler has been invited to be the guest of the Missouri State Medical Society which meets at Sedalia May 19–21. Also to read a paper before the meeting."

Comment is unnecessary!

DOCTOR BLACKMER.

Dr. R. C. Blackmer, Professor of Legal Medicine in the Barnes Medical College, has severed his connection with the *General Practitioner*, and hereafter will write exclusively for this magazine. His Treatise on Medical Jurisprudence which was run as a serial in the *General Practitioner*, will be finished in the TRI-STATE.

DOCTOR PLAYFAIR'S CRIME.

An English jury mulcted Doctor Playfair to the amount of sixty thousand dollars and we hear from a later source that he has settled with the plaintiff for forty thousand dollars and he to pay all the costs of the suit. This was for revealing to his own wife information that he had acquired in a professional capacity. Not a single voice arises from the whole world to defend him in his action.

The circumstances may be explained in this way: The wife of Doctor Playfair has two brothers—Sir James Kitson—a millionaire, and Mr. Arthur Kitson, a man in rather poor circumstances and the husband of the plaintiff in the case. Arthur Kitson had taken up his temporary residence in Australia for the purpose of trying to recuperate his finances, during which time his brother allowed about $2,500.00 per year to the plaintiff for her living.

The plaintiff had not seen her husband for a period of sixteen months. She was in poor health and not able to reside in Australia with him. Her physician, Doctor Williams, deemed the state of her health so precarious, that he advised her to summon in consultation Doctor Playfair, her brother-

in-law. Doctor Playfair was called, made an operation, and removed from the uterus what he claimed to be the remains of placental tissue. Knowing the woman to have been absent from her husband for the space of sixteen months, he concluded that the presence of this tissue was inconsistent with the chastity of the plaintiff. Doctor Playfair at once, and without accepting any explanation from the plaintiff, told his own wife, so, as he says, "that she might not be contaminated by her association with Mrs. Kitson." Doctor Playfair's wife, at once informed her brother, Sir James Kitson, who immediately withdrew the allowance which he had been in the habit of making Mrs. Kitson for her living.

The plaintiff claimed that shortly after leaving her husband she had suffered a miscarriage without medical attendance, and that she had been in poor health ever since and that if the substance discovered by Doctor Playfair was placental tissue, that it had been there since the miscarriage mentioned. She so informed her husband, who to his everlasting credit be it said, believed her story and stood firmly by his wife through all the storm that followed. Suit was brought against Doctor Playfair for revealing information acquired in his professional capacity, with the result mentioned at the heading of this article. These are the facts of the case, on which we are to preach our sermon. We never have claimed that medical ethics or privileged communications rested on anything else than plain, ordinary duty of man to man, and that these communications were to be respected on account of private right, public policy, and Christian charity.

Had the same thing been done by a person not a physician, it would have been deemed by many a highly virtuous and commendatory act. A physician has just as much right to reveal secrets imparted to him in confidence as any other person. If it was right of Doctor Playfair and his wife to abandon their sister-in-law and advertise her shame to the world, if it was right for the brother-in-law to deprive her of her support on receiving such information, it was also a praise-worthy act for the Doctor to expose her.

Doctor Playfair had just as much right to protect his wife or himself or his family from contaminating influences as any one else. In becoming a physician he does not sacrifice any private right that belongs to a layman. It is on a higher moral ground than this that the Doctor must receive his condemnation. He has violated the law of Christian charity. He has received a suffering traveler under his protection, eaten the salt with her and murdered her while she slept. He has violated the law of hospitality which even the half developed savage recognizes on the banks of the Nile or the Ganges.

To violate a secret, unless for great gain, is something seldom known even among the most abandoned criminals.

It is a great humiliation that one so high in the profession should not have profited more from the study of scientific truth. He should have

developed morally and not degenerated. Here is a man, who pretends to the dignity of a gentleman, who fails to yield his protection to a lady in distress, when solicited so to do in tears and humiliation. It is unnatural. Man is not a gossip. Her sin and shame, supposing it true, is not so unusual or so comical, that he should betray her. His wonderful sense of morality had not been irritated unless he was vastly different from ordinary men. It could only happen with a reasonable hope of financial gain. The allowance before mentioned must have been the exciting cause of the act.

This allowance might possibly be diverted to the Playfair family. No lofty motive ever impelled any man to do a mean, low-lived action, but the love of money will make people sordid enough to do anything.

Courts in this country should be very careful what principles they lay down in regard to these professional confidences. There is a great tendency to compel physicians to reveal them, especially in the courts of Illinois. The requirement that a physician shall report to the health officer within a reasonable time all cases of contagious diseases has a close bearing upon this matter. Not long ago a suit was brought against a physician for five thousand dollars damages for reporting a case as one of small-pox and allowing the same to be transferred to quarantine when the further observation of the case did not bear out the first diagnosis. The damages were not allowed but the physician was compelled to bear the expense of defending himself in the court. If cases of contagious diseases must be reported, this should be made the duty of the people themselves on receiving such information from the physician and should not devolve upon the physician at all. Again, what is a physician to do when summoned to attend a case where a woman has performed an abortion on herself? Abortion is no doubt a great public crime, as bad as murder in many cases. There is no way of proving the crime except by the evidence of the physician. Are these crimes to go unpunished forever and ruin this civilization, as they have several others before this? Certainly the woman can not rightfully make us a partner in her crime, an accessory after the fact. What shall we do? Let some of our great economists answer the question from a high moral standpoint. R. C. B.

KITSON VS. PLAYFAIR.

Nothing happening in England in recent years is at all comparable in its professional bearings to the Kitson-Playfair incident. The matter is of such vast importance, both to the profession and the laity, that we shall devote considerable space to it.

Mr. Kitson and Doctor Playfair married sisters.

Mr. Kitson went to Australia, and was married there in 1881. "Mrs. Kitson's first child was born in 1882; a second child was born two years later. Afterwards, as it appears from her own evidence, she was constantly

attended by medical men for uterine affections. She suffered from what she presumed to be a miscarriage just before leaving Australia, but she had no medical assistance on that occasion. Her husband had been estranged from his family for some time, and received an allowance from one of his brothers. By agreement with her husband she came to England in October, 1892, and was ill more or less during the next sixteen months. In January, 1894, she called in Doctor Williams, who, after seeing her a few times, called in Doctor Playfair in consultation. Under chloroform Doctor Playfair removed something from the uterus, which, in his opinion, was a piece of fresh placenta. He concluded that she must have become pregnant within three or four months, and, as she had not seen her husband for about sixteen months, she must have committed adultery. She was receiving an allowance from her brother-in-law, Sir James Kitson, of $2,500 a year. Doctor Playfair considered it his duty, on the grounds of morality, and in the interests of the family, to tell his wife and brother-in-law; and, as a consequence, Sir James Kitson stopped the allowance."

Then Mrs. Kitson sued the Doctor.

The plaintiff claimed that the Doctor had broken the solemn seal of professional confidence by informing his wife of his opinion of Mrs. Kitson. The defendant took the position that it was his duty to inform his wife: "The defendant, through his counsel, did not plead justification, nor ask the jury to say Mrs. Kitson was not chaste; but in the witness box he practically gave a positive opinion that she had committed adultery. It came out also incidentally that Doctor Spencer, Professor of Midwifery in University College, who had examined the plaintiff on two occasions, and had examined the "body removed," expressed the opinion that it might have resulted from legitimate conception, *i.e.*, conception before she left Australia. Mr. Arthur Kitson believed in the chastity of his wife, or, as the judge expressed it, 'he believed in her truth and goodness, and stood by her.' When Mrs. Kitson ascertained Doctor Playfair's opinion she begged for an interview that she might explain or answer any questions. The judge, in his charge, referred to this, and asks: 'Why did not Doctor Playfair grant that interview? Would it have been such a professional indignity to have gone and heard her explanation? He, with his vast knowledge and experience, could have put questions to her that would have been vital to her case.' In one of her letters to Doctor Playfair she asked: 'Why did you not let my unhappy life go? I am hunted out like the veriest outcast.'" The jury promptly awarded the plaintiff a $60,000 verdict.

This case will have a salutary effect upon that class of doctors who are only too willing to tell all they know. "Never tell all you may know," says the Arabian proverb, "for he who tells all he knows, often tells more than he knows." After reading a number of accounts of this celebrated case, as recorded in English and American journals, we fail to find any

extenuating circumstances, and can only conclude that Doctor Playfair got his just deserts. Many years ago Francis H. Ramsbotham wrote a treatise on obstetrics, which showed him to be not only a scientific man, but a gentleman. In his book the following occurs: "Wielding such powers, entering the privacies of families, and being the depository of facts which involve the happiness of individuals and society, the obstetrician mindful of his sacred trust, should never abuse the confidence reposed in him; let him remember that the fair fame of woman is like the delicate, impalpable powder upon the beauteous wings of the butterfly, once brushed off, it can never return; and that the reputation which his hasty verdict has once spotted, can never again shine forth in its pristine brightness and purity. On occasions like these, true substantial justice requires that women should have the full advantage of every leaning in their favor."

Indian Territory Medical Association.—The Semi-Annual meeting for 1896 will convene at Wagoner, June 2 and 3. Dr. J. S. Fulton, of Atoka, is President, and Dr. J. G. Rucker, of Claremore, Secretary. Following is the program:

Capillary Bronchitis, Dr. LeRoy Long, Caddo. Discussion opened by Dr. R. I. Bond, Hartshorne. Gastritis, Dr. G. W. West, Eufaula. Discussion opened by Dr. J. G. Rucker, Claremore. Acne, Dr. G. A. McBride, Ft. Gibson. Discussion opened by Dr. E. Pleas, Oolagah. Chronic Malarial Infection, Dr. G. R. Rucker, Eufaula. Discussion opened by Dr. J. C. Bushyhead, Claremore. Acute Articular Rheumatism, Dr. J. D. Brazil Wagoner. Discussion opened by Dr. W. B. Pigg, South McAlester. Scarlet Fever, Dr. J. L. Blakemore, Muskogee. Discussion opened by Dr. J. S. Fulton, Atoka. Acute Intestinal Catarrh, Dr. J. M. Boling, Claremore. Discussion opened by Dr. W. C. Hall, Coffeyville, Kansas. Surgery of the Pelvic Organs, Dr. M. B. Ward, Topeka, Kansas. Discussion opened by Dr. F. L. A. Hamilton, Wagoner. Surgery of the Intestines, Dr. F. B. Fite, Muskogee. Discussion opened by Dr. L. C. Tennent, McAlester. Hemorrhoids, Dr. O. Bagby, Vinita. Discussion opened by Dr. C. P. Linn, Claremore. Orthopedic Surgery, Dr. E. N. Allen, South McAlester. Discussion opened by Dr. S. A. Bryan, Wagoner. Plastic Surgery, Dr. B. F. Fortner, Vinita. Discussion opened by Dr. B. E. Throckmorton, Hartshorne. Diseases of the Spinal Vertebræ, Dr. H. B. Smith, McAlester. Discussion opened by Dr. M. F. Williams, Muskogee. Puerperal Septicæmia, Dr. M. C. Marrs, Ft. Gibson. Discussion opened by Dr. J. M. Howard, Ft. Gibson. Practice of Obstetrics in Contracted Pelvices, Dr. J. T. Wilson, Sherman, Texas. Discussion opened by Dr. E. Y. Bass, Talala. The Use and Abuse of the Obstetrical Forceps, Dr. W. G. Blake, Tahlequah. Discussion opened by Dr. W. H. Bailey, Eufaula. Uterine Displacements, Dr. G. Lucas, Van Buren, Arkansas. Discussion opened by Dr. T. S. Youngblood, Adair. Atrophic Rhinitis, Dr. H. Moulton, Ft. Smith, Arkansas. Astigmatism, Dr. B. F. Tiffany, Kansas City, Missouri. Heteraphoria, Dr. G. A. Wall, Topeka, Kansas.

HISTORICAL SKETCH.

JOHN HUNTER, 1728—1793.*

By JAMES MOORES BALL, M.D., of St. Louis.

WITH the single exception of Hippocrates, no greater man than John Hunter has adorned our profession. Galen, Celsus, Paré, Haller, Bichat, Harvey, Jenner, Sydenham, Astley Cooper—each one of these deserves an honorable position in the history of medicine; each one was noted for excellence in some special line of work, or made some particular and valuable discovery; but in John Hunter the diversified talents of a half dozen illustrious men were combined to form a glorious unit. So vast were his labors, so marvelous his genius, so valuable his discoveries, that his name deserves to be spoken with reverence in every amphitheater and hospital where the science of medicine is taught. Not only was Hunter great as a surgeon, a physician, an anatomist, and a physiologist, but, more than this: "He was a philosopher whose mental grasp embraced the whole range of Nature's works, from the most humble structure to the most complex and lofty. He was emphatically the Newton of the medical profession." (Gross.) The father of scientific surgery, he was also the parent of scientific zoology and comparative physiology.

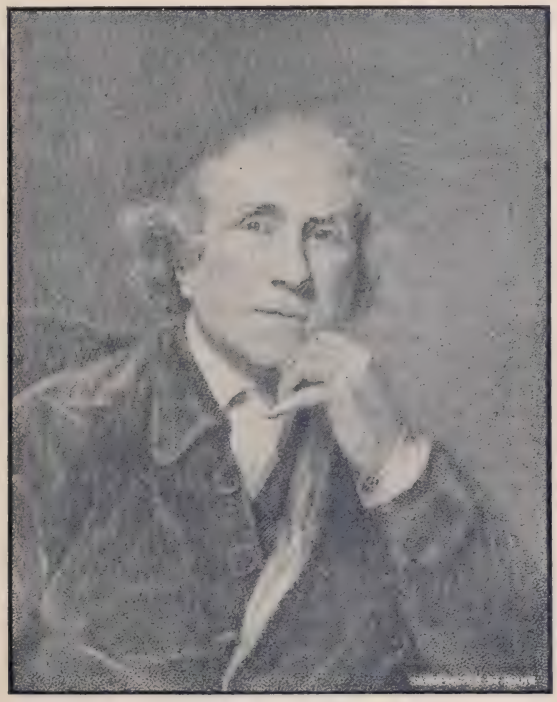
There have been men more scholarly than John Hunter, there have been men more polished and gentlemanly and considerate than he; but there has been no man who could "toil terribly" for a longer time than he. It is not a little remarkable, in a profession whose devotees are supposed to profit so much by a classical education, that both Ambrose Paré and John Hunter, whose early education was grievously deficient, should have attained such exalted positions in medical science. Paré was ignorant of Latin at a time when almost all medical works were written in that tongue; but he was at home in French. In the case of Hunter, there was a deficiency, not only in Latin and Greek, but even in his mother tongue. Truly, as Gross remarks: "His genius soared above the regions of grammar and of rhetoric."

Born at Long Calderwood, Lanarkshire, Scotland, on the 13th of February, 1728, of poor, but respectable parents, Hunter was an orphan at ten (his father dying); a shiftless, wayward boy of all work at seventeen; an enthusiastic, painstaking medical student at twenty. The change in his life was brought about by his brother, Dr. William Hunter, of London, who was on the high road to fame and fortune. William Hunter was conducting anatomical rooms and collecting materials for a great museum. So rapidly was the proficiency of John Hunter acquired, that in less than a year he was intrusted with his brother's subjects for his anatomical lectures. William, viewing the work of the young anatomist, predicted his future greatness in that department, and told him "he should never want employment." In 1755, seven years after his arrival in London, John was admitted to a partnership in the school. It is sad to know that the fraternal bonds existing between these two were severed at a later date, over a ques-

*Read before the St. Louis Academy of Medical and Surgical Sciences.

tion of priority in the discovery of the nature of infantile hernia, and that for a period of twenty years William and John Hunter were enemies. Reconciliation came only when William was in his last illness.

In the summer of 1749 Hunter attended the Chelsea Hospital and received instruction from the celebrated Cheselden, who was then an aged man. Two years later he became a pupil at St. Bartholomew's Hospital and walked the wards with Percivall Pott. Following the advice of William, who desired him to abandon the study of surgery and take up the more honorable pursuit of medicine, John entered St. Mary's Hall, Oxford, in 1753, as a gentleman commoner. It was hoped that he would acquire a respectable knowledge of the Latin and Greek languages, since they were necessary to the education of a physician, although not considered at that



JOHN HUNTER.

time of much use to a surgeon; but it was not so to be. Hunter was soon back in the dissecting room and explained his feelings by saying: "They wanted to make an old woman of me, or that I should stuff Latin and Greek at the University." More than thirty years later he wrote of an opponent: "Jesse Foot accuses me of not understanding the dead languages, but I could teach him that on the living body which he never knew in any language, dead or living."[1]

After serving two years as house surgeon to St. George's Hospital, Hunter was obliged by failing health to resign his sedentary duties, and sought relief in army service. For three years he held the appointment of

[1]Ottley: Life of J. Hunter, p. 22.

staff surgeon in the English expedition to Belleisle and Portugal. While thus engaged he wasted no time, but gained a great familiarity with gunshot wounds. The practice in vogue among army surgeons at that period, of dilating the bullet track with the knife, was condemned by Hunter. The conditions attending coagulation of the blood, the study of human anatomy, the phenomena of inflammation, the condition of the digestive apparatus in lizards and snakes during hibernation—these were subjects which engaged the attention of the young surgeon during his army career. Much of the labor then done by him did not see the light of day until 1794, when his posthumous work, "A Treatise on the Blood, Inflammation, and Gun-shot Wounds," was issued under the supervision of Dr. Matthew Bailey and Sir Everard Home. A biography of the author by Home was prefixed to the work, but was omitted in subsequent editions.

Upon his return to England, Hunter commenced the laborious task of establishing a surgical practice. The leading surgeons of London in that day were Pott, who was at the head of the profession; Sharpe, Warner, Tompkins, Adair, Hawkins and Bromfield. With such a brilliant galaxy, Hunter was ill-fitted to cope. He had none of the charming personality that is so necessary in securing the confidence of the public. His manner was always abrupt, and often repulsive. Conscious of his superior mental equipment, his personal equation was such that it delayed his pecuniary success. Others could please, but Hunter worked. He literally hewed out his path and compelled the public to respect him first and employ him afterwards. Those were trying years. Hunter had retired on half pay, and he sought to add to his slender income by teaching operative surgery and practical anatomy to a private class. As was the custom of the day, this practice was continued until within a short time of his death. Each pupil was apprenticed to Hunter for a term of five years, at a fee of five hundred guineas. This sum was not large, since it included board and lodging. The class was never a large one, but in it were some individuals destined to achieve greatness. Abernethy, Jenner, Physick and Thompson were among the names. Hunter devoted his leisure time to the study of comparative anatomy, and for this purpose he obtained the bodies of animals dying in the Tower Menagerie and various zoological gardens.

In 1767 Hunter ruptured his tendo Achillis. This accident led him to examine into the method of union in such cases. He made many experiments on dogs, and his studies pursued in this line of research laid the foundation for the modern practice of tenotomy for the cure of deformity. However, he made no practical application of the knowledge thus obtained; we cannot, therefore, regard him as the founder of orthopedic surgery, as some of his enthusiastic admirers would have us believe. Nearly half a century later, Stromeyer, without any aid from Hunter's researches, placed the whole matter in its true light. The same year Hunter became a member of the Royal Society. In a paper published in the *Philosophical Transactions*, in 1772, Hunter first correctly explained the phenomenon of post-mortem digestion of the stomach, which he attributed to the action of the gastric juice. During the next twenty years Hunter gave the world an astonishing number of papers on a great variety of subjects. Everything he touched, he illuminated. The titles of some of these productions will prove at once the range of his mind. Thus he wrote on the torpedo, in 1773; air recep-

tacles in birds, and the Gillaroo trout, 1774; the *Gymnotus electricus*, 1775; resuscitation of the apparently drowned, 1776; the free martin, 1779; the communication of small-pox to the fœtus in utero, 1780; the organ of hearing in fishes, 1782. These are but a few of the subjects which occupied the attention of Hunter.

His first systematic work was the Treatise on the Natural History and Diseases of the Human Teeth, the first part of which was issued in 1771, and the second in 1778. Dentistry, as a science, was then unknown. The blacksmith, the barber, the watchmaker, and others of the same class, were the dentists of every village and country town; and in the large cities irregular practitioners of dentistry were to be found under the very shadow of the universities and medical schools. Strength of muscle was considered more necessary than anatomical knowledge or surgical skill. The whole subject of dentistry consisted in the plugging and pulling of teeth. Hunter pointed out the physiological and pathological relations which the teeth bear to the system, and to him is due the merit of rescuing this important specialty from the domain of empiricism.

In original research Hunter was pre-eminent. Many of his grandest discoveries belong to the domain of surgery; but it was as a surgical pathologist, not as an operator, that he surpassed. How unjust was his opinion of operative surgery may be judged from his words: "To perform an operation is to mutilate a patient whom we are unable to cure; it should therefore be considered as an acknowledgment of the imperfection of our art." As operators, Pott, Bromfield and others of the London surgeons outranked him. Hunter could discover great principles in surgery, however, and one of his fairest laurels is his operation for aneurism. This consisted in ligating the artery on the cardiac side, instead of amputating the limb or opening and emptying the sac before ligating the orifices of the vessel. He was led to this result by observing the frequent failure of the old procedure, and by learning from numerous dissections that the artery in the vicinity of the aneurism is unsound. It was in December, 1785, that, in a case of popliteal aneurism, he ligatured the femoral artery in the lower part of its course in the thigh, in the space since known as "Hunter's canal." The patient recovered, and Hunter inaugurated an operation destined to preserve life and limb to thousands. In the first three instances where this operation was performed, Hunter, fearing secondary hemorrhage, made the mistake of applying four ligatures which included not only the artery but also the vein. In the fourth case the artery alone was tied. This patient lived for fifty years afterwards.

The portrait of Hunter accompanying this sketch is taken from Sharp's celebrated steel engraving of Sir Joshua Reynolds' admirable painting, of which Lavater remarked: "This is the portrait of a man who thinks." Reynolds found Hunter a bad sitter, and was not pleased with his work, when one day, after the portrait was far advanced, Hunter fell into a deep train of thought, became oblivious to his surroundings and dropped into the attitude shown in this picture. Without saying a word, Reynolds turned the canvas upside down, made a new sketch, with the head between the legs of the former picture, and so proceeded to complete the portrait which now adorns the library of the College of Surgeons. Sharp always considered his engraving of Hunter one of his happiest efforts, and was found poring over it with glee forty years after he had made it.

The Eye in its Relation to Health. By CHALMER PRENTICE, M.D., Chicago. A. C. McClurg and Company, 1895.

In a duodecimo volume of over 200 pages, the author sets forth unknown wonders. If all his statements are true, almost all diseases can be cured by "repression treatment" of the eyes. We find that the wonderful doctor has cured ovaritis, prostatitis, insanity, rheumatism, asthma, diabetes and other diseases too numerous to mention, by applying prisms to the eyes, or by cutting ocular muscles. We confess that we are at a loss where to place Dr. Prentice. Perhaps it would be well to create a special class of the *genus homo*, for his particular benefit. We hope the book will not be sold to the profession. It was written for the laity.

The Year Book of Treatment, for 1896. A critical review for practitioners of medicine and surgery. Price $1.50. Published by Lea Brothers & Co., Philadelphia.

The various departments of medicine, surgery, etc., in this, the 12th issue of this valuable book, are in charge of the following eminent contributors: Diseases of the Heart and Circulation, Sidney Coupland, M.D., F.R.C.P. Lungs and Organs of Respiration, E. Markham Skerritt, B.A., M.D., F.R.C.P. Lond. The Treatment of Nervous and Mental Diseases, Ernest S. Reynolds, M.D., M.R.C.P. Lond. Diseases of the Stomach, Intestines and Liver, W. Hale White, M.D., M.R.C.P. Lond. Kidneys, Diabetes, etc., Charles Henry Ralfe, M.A., M.D. Cantab, F.R.C.P. Lond. Gout, Rheumatism and Rheumatoid Arthritis, Archibald E. Garrod, M.A., M.D., F.R.C.P. Infectious Fevers, Sydney Phillips, M.D., F.R.C.F. Lond. Medical Diseases of Children, Dawson Williams, M.D., F. R.C.P. Lond. Anæsthetics, Dudley W. Buxton, M.D., B.S., M.R.C.P. General Surgery, William Ross, M.B., B.S., F.R.C.S., and Albert Carloss, M.S. Lond. Orthopædic Surgery, W. J. Walsham, F.R.C.S. Surgical Diseases of Children, Edmund Owen, M.B., F.R.C.S. Genito-urinary system, Reginald Harrison, F.R.C. Rectum, Alfred Cooper, F.R.C.S. Venereal, J. Ernest Lane, F.R.C.S. Diseases of Women, G. Ernest Horman, M.B., F.R.C.P. Lond. Midwifery, M. Handfield Jones, M.D. Lond. Skin Diseases, Malcolm Morris, F.R.C.S. Ed. Eye, Henry Power, M.B., F.R.C.S. Ear, George P. Field, M.R.C.S. Throat and Nose, Barclay J. Baron, M.B. Ed. Tropical Diseases, Patrick Manson, M.D. Public Health and Hygiene, B. Arthur Whitelegge, M.D.

This list of names is sufficiently suggestive as to the high character of this book. Every department of medicine and surgery, including all the specialties, is covered in its 275 pages.

Color-Vision and Color-Blindness. A Practical Manual for Railroad Surgeons. By J. ELLIS JENNINGS, M.D. (Univ. Penna.), Formerly Clinical Assistant Royal London Ophthalmic Hospital (Moorfields) Lecturer on Ophthalmoscopy and Chief of the Eye Clinic in the Beaumont Hospital Medical College; Ophthalmic and Aural Surgeon to the St. Louis Mullanphy and Methodist Deaconess Hospitals; Consulting Occulist to the Missouri, Kansas and Texas Railway System; Fellow of the British Laryngological and Rhinological Association; Secretary of the Medical Society. Illustrated with One Colored Full-Page Plate and Twenty-One Photo-Engravings. Crown Octavo, 110 pages. Cloth, $1.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

We congratulate Doctor Jennings upon having produced a valuable book at an opportune time. It is now sixteen years since Doctor B. Joy Jeffries, of Boston, gave us his classical "Color-Blindness: Its Dangers and Its Detection." Although many articles have been written upon color-blindness since that time, there has been no clear, concise manual upon the subject. Doctor Jennings' book deserves to meet with a large sale. It is a credit to medical Saint Louis.

A Text Book of Chemistry. Intended for the use of Pharmaceutical and Medical Students. By SAMUEL P. SADTLER, Ph. G., F. C. S., and HENRY TRIMBLE, A. M., Ph. M. Octavo, pp. 950. Philadelphia: J. B. Lippincott Co., 1895.

The authors of this book are professors in the Philadelphia College of Pharmacy, and both are known to scientific chemists by other writings. An experience of seventeen years as teachers has led the authors to say that chemistry "must be taught in a way that, while thoroughly scientific, is yet distinctly adapted to the ultimate uses of the students." The volume is divided into: (1) Elementary Physics; (2) Chemistry of the Non-Metals; (3) Chemistry of the Metals; (4) Organic Chemistry; and (5) Analytical Chemistry and Pharmaceutical Assaying.

The authors have written what, in our humble judgment, is the best text-book of Chemistry ever written in America. The press work and binding are such as one would expect from the well-known publishing house.

Missouri State Medical Association.—The annual meeting of the Missouri State Medical Association which will be held at Sedalia, May 19, 20, and 21, 1896, promises to be of unusual interest and a number of valuable papers will be presented. The most direct line to Sedalia from this city is the Missouri Pacific Railway, which offers a number of advantageous trains whereby members may save time. Three trains leave Union Station daily and we suggest that members who will attend this meeting should call upon the ticket agent, Broadway and Olive street, for particulars. The Missouri Pacific Railway always makes concessions to this Association and will furnish tickets at one and one-third fare for the round trip. When purchasing your ticket the agent will furnish you a certificate which, when countersigned by the Secretary of the Association, will enable you to purchase a ticket to return at one-third fare.

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.*

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

ST. LOUIS, MO.

HANGING.

Question. What is hanging?

Answer. That form of Apnœa in which respiration is prevented by a ligature drawn tightly around the neck, the constricting force being the weight of the victim's own body.

Question. What are the most important modes of hanging?

Answer. 1. The lynching method, where a cord is noosed around the neck and the body suspended by drawing the other end of the cord over the branch of a tree, death resulting from pure Apnœa.

2. The cart method, employed in old-fashioned executions, where the cord is noosed around the neck, fastened overhead and the floor removed, little or no drop being allowed, death resulting from pure Apnœa. Suicides generally employ some method closely allied to this.

3. The long drop method, as employed in modern executions, where the cord is noosed around the neck, the knot being placed under the chin or under the ear and fastened overhead and the floor removed, allowing a drop of about ten feet, death resulting instantaneously from fracture or dislocation of the vertebræ of the neck and consequent pressure on or disorganization of the medulla oblongata.

4. The partial suspension method, the head simply resting in the noose, the feet still touching the ground, death taking place from Apnœa and Coma mixed. The partial constriction around the neck allowing the blood to flow in the carotids, but preventing its return through the jugulars, the cessation of respiration being gradual.

5. The pressure method. Apnœa has at times been caused by simply leaning the neck upon the cord, no constriction being present except in front, where the trachea was compressed between the cord and the neck. In these cases the neck muscles are rendered powerless before the victim has time to extricate himself. Death results from Apnœa and Coma mixed as in the preceding case.

Question. What two questions have to be considered in the legal investigation of cases of suspected death by hanging?

Answer. 1. Was death by hanging.

2. Was the hanging accidental, suicidal or homicidal.

Question. What are the post mortem appearances shown in death by hanging?

Answer. 1. In rigor mortis the head is generally flexed, opposite to the location of the knot.

2. The face is congested and swollen if the body has been suspended for any length of time; this is particularly true if the constriction was gradual.

3. The tongue is swollen and livid, especially at the base, and generally protruding.

4. The pupils are dilated, eyes

*This Manual of Medical Jurisprudence was begun in the *General Practitioner*, a monthly journal founded by Doctor Blackmer. Having severed his connection with that publication, Dr. Blackmer will finish the Manual in the TRI-STATE MEDICAL JOURNAL.—(EDITOR.)

bulged and the crystalline lens usually fractured in a stellate manner.

5. The hands are tightly clinched.

6. Fæces, urine and seminal fluid are usually found staining the clothing.

7. The usual internal signs of death by Apnœa are present.

8. Congestion of and apoplectic clots on the membranes of the brain are often found, and puncta cruenta are numerous.

9. The genital organs are usually engorged with blood.

10. The stomach is often so much congested as to give rise to the suspicion that death has resulted from the administration of an irritant poison.

II. Injuries to the Neck.

A. The injuries to the neck are similar when a body recently dead is suspended, but only a murderer would be likely to suspend a body dead from any other cause.

B. The neck appears stretched.

C. In suicidal hanging the injury to the neck is generally slight.

E. The injury to the soft parts will depend upon the height of the fall and the length of time the body has been suspended. The cuticle is rubbed off, the muscles often torn, the laryngeal and tracheal cartilages crushed, the vertebræ dislocated or fractured, the carotids and jugular veins divided.

E. The larynx and trachea are always congested red, but not brown, violet or clay color. The latter colors are the result of putrefaction.

F. The larynx and trachea are often filled with a bloody froth and this is most constant when the stoppage of respiration has been gradual.

G. When clots of blood are found in the vicinity of the injuries on the neck it is an evidence that the body was alive when suspended.

III. The Marks of the Cord.

a. The mark of the cord is situated above the larynx and between that and the hyoid bone.

b. The mark is single if the cord was once around the neck and double if twice around.

c. The depth of the mark depends more upon the length of time the body has been suspended than any other cause.

d. The mark may not be present at all if the hanging was suicidal and the body soon taken down.

e. The mark is oblique with the highest point opposite the knot.

f. The mark may not be continuous all the way around the neck, especially if the person was thin and the muscles well developed.

g. The mark is less distinct if the ligature be of soft material, such as a handkerchief or cloth bandage, and more distinct if a twisted hempen rope is used.

h. The mark is yellowish, leathery, condensed and glistening, and the structures in the neck beneath the ligature very white and bloodless.

i. The ecchymosis and lividity are above the mark of the cord, while pallor exists below it.

j. If the cord be small and the drop considerable the victim may be beheaded.

12. No one sign here related is pathognomonic of death by hanging, but when a majority are present the jurist will have little doubt.

13. Careful search should be made for other causes of death.

Question. What facts have to be considered in forming an opinion as to whether the suspension of a body was homicidal, suicidal or accidental?

Answer. 1. Death from hanging otherwise than in a public manner is presumptive of suicide.

2. Death from other causes and the body found suspended is presumptive of homicide.

3. Marks of violence on the hanged may have been produced by the person himself in the attempt to commit suicide by other means.

4. Any wounds found on the body should be studied on their own merits and carefully described.

5. Marks of violence on the hanged are frequently due to accident.

6. Homicidal hanging presumes great preponderance of force on the part of the assailant.

7. Accidental hanging is infrequent, but has been known; in these cases the coil of rope becomes entangled about the neck and is not noosed.

8. When two marks of the cord are found and the rope about the neck but once, the presumption is homicide by strangulation.

9. A body may have been completely suspended at first and subsequent to death the rope stretch or give way and the body be found with the feet touching the ground.

10. When a body is found dead by hanging and the rope gone the fact is clear that the body has been interfered with after death.

11. Marks of violence on the backs of the hands are indicative of homicide.

12. The attitude of the body, state of the clothing and hair, as indicative of a struggle, may influence opinion in favor of homicide.

13. Finding the body only partially suspended is indicative of suicide.

14. The limbs have been found tied, occasionally, in undoubted suicical hanging.

15. A person may be homicidally hanged without any marks of violence, if intoxicated or narcotized at the time.

16. A person may take poison and afterwards hang himself, before the poison has had time to act. The poison may thus be found, on post mortem examination, in the contents of the stomach.

17. People occasionally die while experimenting upon themselves for the purpose of ascertaining the sensations of death by hanging.

18. People sometimes partially asphyxiate themselves for the purpose of sexual stimulation.

19. It is well to study the moral and mental state of the person previous to hanging, as this may have a great bearing upon the case and explain many of the circumstances present.

20. The question may possibly arise as to the likelihood of a certain cord having been sufficiently strong to have sustained the weight of a certain body. This can be determined by suspending a weight of some other material equal to the weight of the body from the same cord. This is of little importance for the cord may be very small and yet sufficiently strong to compress the trachea and cause death.

Question. What is the prognosis in cases of suspension where the body has been cut down while still alive?

Answer. Unfavorable, though some cases have been saved where the injury to the structures of the neck has been slight. The most successful method of treatment is by phlebotomy, stimulation and artificial respiration.

SMOTHERING.

Question. What is smothering?

Answer. That form of Apnœa where breathing is prevented by any means other than by filling the air passages with fluid and by external pressure on the trachea.

NOTE.—In most literature no distinction of any importance is made between smothering and suffocation. I propose in this work to confine suffocation to those forms of Apnœa where the respiratory medium is alone at fault, and smothering to those cases where the act of breathing is prevented by mechanical means, thus making a clear distinction between the two.

Question. In what different ways is smothering effected?

Answer. 1. Overlaying, which frequently occurs when infants are placed in bed with grown people. Slight intoxication on the part of the adult may destroy the sense of the presence of the infant, and place it in the greatest danger.

2. By closely applying the hand, a plaster or a wet cloth over the mouth and nostrils.

3. By heavy weights pressing on the chest and abdomen.

4. By being buried by avalanches of earth, as frequently occurs to people working in mines and ditches.

5. By being drawn down in quicksands, or as sometimes happens in a grain elevator.

6. By having the head plunged in dust, snow, feathers, rags, wool, cotton, ashes, flour, mud, etc.

7. By plaster casts applied over the face, forgetting to insert tubes in the nostrils.

8. By the presence of foreign bodies in the œsophagus.

9. By foreign bodies in the larynx, trachea and bronchi.

10. By vomiting and regurgitation of food, the contents of the stomach blocking up the glottis.

11. By abscesses and tumors pressing on the air passages.

12. By clots of blood from wounds of the air passages.

13. By the tongue falling back and closing the glottis, as is frequently observed in the administration of anæsthetics.

14. By inflammatory swelling, as in œdema of the glottis.

15. By occlusion of the air passages by false membrane as in diphtheria.

16. By paralysis of the lungs or respiratory muscles.

17. By double pleuritic effusion, either serum, pus or blood.

18. By pulmonary apoplexy.

19. By destruction of lung tissue, as in consumption.

20. By solidification of the lungs, as in pneumonia.

21. By diaphragmatic hernia.

22. By the trachea being cut across, and the lower end becoming buried in the muscular and cellular tissue of the neck.

23. By the contraction of cicatricial tissue, following burns.

24. By embolism of pulmonary artery.

Question. What is the legal presumption in cases of death by smothering?

Answer. The large majority of deaths by smothering are due to accident or are the result of natural disease.

Question. What points are to be considered in forming an opinion as to whether a given case of smothering was accidental, suicidal or homicidal?

Answer. 1. Suicide by smothering is difficult.

2. In all cases of accidental smothering the manner by which it occurred is apparent.

3. Homicidal smothering is generally confined to infants.

4. Burke and Williams murdered their victims by smothering. They covered the faces and exerted great pressure on the chest and abdomen. The bodies were disposed of to the Edinburgh Medical Colleges, and

constituted the crime of Burking, as it is now known.

5. There are no post mortem signs strictly pathognomonic of death by smothering. All the signs of death by Apnœa are present, with the addition of the injuries produced by the original cause, whatever that may have been.

6. Children are frequently smothered during birth by compression of the cord or by the child's head being sunk in the blood and filth of the bed subsequent to labor.

7. That one adult should smother another adult presupposes a great preponderance of force on the part of the assailant, unless the victim be weakened by intoxication, narcosis or disease.

SUFFOCATION.

Question. What is suffocation?

Answer. It is that form of Apnœa where death results on account of the prevention of the proper oxygenation of the blood, through impurity, deficiency or impoverishment of the air supply.

Question. In what way is suffocation brought about?

Answer. 1. By carbonic acid poisoning, the oxygen having been consumed by breathing or by the presence of fires. This occurs in a narrow apartment, devoid of ventilation.

2. By carbonic acid poisoning, where the gas has been deposited in low places, as wells and cellars.

3. By carbonic acid poisoning, in mines, where the oxygen has been consumed by an explosion of fire damp.

4. By poisoning from ordinary illuminating gas, as frequently occurs from blowing out the gas.

5. By poisoning from the effects of the ordinary anæsthetics, as in the administration of ether, chloroform and nitrous oxide gas.

Question. What is the legal presumption in cases of death by suffocation?

Answer. The large majority of cases of death by suffocation are the result of accident and ignorance. If the death is homicidal it will usually have to be proved from other than medical evidence.

Doctor Heuer.—Doctor P. J. Heuer, late interne at the City Hospital, will enter private practice in Saint Louis. Doctor Heuer is a thoroughly qualified medical man and a gentleman.

Doctor John Young Brown.—It gives us pleasure to announce that Doctor John Young Brown, recently from Kentucky, has located in Saint Louis, and will limit his practice to pelvic surgery.

J. B. Loraine, M. D., writes: I have had occasion recently to test thoroughly the remedial effects obtained from the use of the compounds of calcium, magnesium, iodine and iron, as recommended by Prof. Roberts Bartholow, in the treatment of the *scrofulous diathesis* in children.

Thinking the Elixir Iodo Bromide of Calcium Compound (Tilden's) would more completely meet the indications in these cases than would any other compound of these salts found in the market, I prescribed it in a typical case; one that presented the usual pathological conditions, such as strumous ophthalmia, otorrhœa, enlarged lymphatic glands, etc.

The result was simply wonderful, and so entirely satisfactory, that I shall certainly take great pleasure in prescribing it in the future.

CORRESPONDENCE.

DOCTOR CARTER'S LETTER.

The following letter has been addressed by Dr. Howard Carter, City Milk Inspector to the Medical Directors of various Life Insurance Companies:

St. Louis, April 5, 1896.

Dear Sir:—As having a practical bearing upon the large mortality from the various forms of tubercular diseases among the human family, my attention has been drawn to the alarming extent to which this condition is known to exist among dairy cattle. The transmission of tuberculosis to various of the lower animals by the use as food of the uncooked milk of tuberculous cows has been frequently demonstrated, and there is no reason to suppose that our own kind are in any degree less susceptible.

I am not aware that this aspect of the subject has been at any time brought to the attention of Life Insurance Companies. Its direct bearing upon the public health, and consequently upon the death rate, should commend itself to them as a problem, the practical solution of which would result in a saving of thousands of human lives, and of millions of dollars annually, not only would the direct losses be reduced, but an improved vitality developed in coming generations by avoidance of the entry of toxic germs, which, if they do not directly lead to conditions resulting in death, may lay dormant, or in a condition of equilibrium, until the general vitality is sufficiently lowered to permit their full development.

In bringing this matter to your attention, I desire to request an energetic and persistent demand from the medical profession in general, and from the Medical Directors of Life Insurance Companies in particular, for the enactment of protective legislation, protection that *will* protect and benefit our whole people, and diminish the ravages of that most insidious and dreaded enemy of the human race—tuberculosis.

Respectfully yours,

Howard Carter, M. D., Milk Inspector.

FROM DAKOTA.

South Shore, S. Dak., January 27, 1896.

Editor Tri-State Medical Journal, St. Louis, Mo.

Dear Sir:—Enclosed please find $1.00, due on back subscription for the T.-S. M. J. Respectfully,

A. A. Somsen, M. D.

CARD FROM DR. FRY.

MISSOURI COUNTY AND DISTRICT SOCIETIES.

In order to better organize the work of the Missouri State Medical Association, its officers are desirous of having the names, the places and times of meetings, names of the officers, and other important data of every regular local society in the State (State, County and District.)

Officers of the same will greatly oblige by sending information under this head to

Dr. Frank R. Fry,
Secretary Missouri Medical Association,
3133 Pine street, St. Louis, Mo.

LETTER FROM LONDON.

6 LOWER BERKELEY STREET, PORTMAN SQUARE, W., Feb. 20, 1896.

DEAR SIR:—I am much obliged to you for your letter of the 13th ult., and for your courtesy in inserting my paper in your journal. Please also accept my best thanks for kindly forwarding me with such regularity THE TRI-STATE MEDICAL JOURNAL. The ability and enterprise with which it is conducted are such as to make it warmly appreciated wherever medicine and surgery are cultivated.

If I can in any way assist you in extending the range of your contributors from amongst my friends in this part of the world, I shall be glad to do so.

With kind regards, believe me, very truly yours,

RIGNALD HARRISON.

Dr. James Moores Ball.

WORDS OF CHEER.

CHARLES CITY, IOWA, Feb. 15, 1896.

DEAR DR. BALL, Keokuk, Io.

Please find $2, to balance as per late bill, for the TRI-STATE MEDICAL JOURNAL. It is a good journal.

Yours truly,

J. W. SMITH.

ANOTHER RENEWAL.

PARNELL, IOWA, Feb. 24, 1896.

DEAR DOCTOR:—Inclosed find draft or post-office order for $1 to pay for subscription to JOURNAL last year. You are editing a medical journal that Western physicians should feel proud of.

Fraternally yours,

T. J. SHUELL.

COOK COUNTY INSANE ASYLUM, DUNNING, Feb. 14, 1896.

DR. JAMES M. BALL, 3509 Franklin Ave., St. Louis, Mo.

Enclosed please find one dollar for the TRI-STATE MEDICAL JOURNAL. Send to Dunning Insane Asylum where I have had charge of the female department since July 1895. Success to the JOURNAL.

Yours respectfully,

ELIZABETH H. KEARNEY.

Dunning, (Illinois) Insane Asylum.

NEW SUBSCRIBER.

IOWA CITY, IOWA, Feb. 19, 1896.

EDITOR TRI-STATE MEDICAL JOURNAL, St. Louis Mo.

DEAR SIR:—Please send my name as a subscriber to the TRI-STATE MEDICAL JOURNAL. Please begin by sending me copies of the January and Feb. 1896 issues.

Truly,

E. DAVID RUSSELL.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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Vol. III. SAINT LOUIS, JUNE, 1896. No. 6.

CLINICAL LECTURE.

LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION.

By G. FRANK LYDSTON, M. D.,

Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Attending General Surgeon to the Militant Hospital; Lecturer on Criminal Anthropology in the Kent College of Law.

[CONTINUED FROM MAY ISSUE.]

IT is well to remember that the venereal orgasm is not merely a local matter, involving pleasurable sensation and the evacution of the seminal vesicles, but affects the nervous system as a whole, in a most profound manner. So important a relation does the sexual act bear to the general nervous system, that it is only individuals of mature age who can bear even infrequent acts of copulation without more or less injury. In young persons all of the vital power of the system should be conserved for the purposes of growth and development. The results upon the nervous system of the act of copulation, deserve especial consideration.

In some species of animals the epileptiform character of the sexual orgasm is very prominent. Writers have called especial attention to the conduct of the male rabbit, who, after each act of copulation falls over upon his side, the whites of the eyes being turned up, and the limbs in a

condition of clonic spasm. Similar phenomena occur in some other animals, and are due to the effect of the discharge of nerve force on the spinal cord. The severity of the impression or shock upon the nervous system in the case of the human subject, has been aptly illustrated in those occasional instances in which individuals have died suddenly during or after the act of copulation. Apoplexy and paralysis have been known to result in individuals predisposed to these conditions, as a consequence of the sexual orgasm.

The location of the seat of sexual sensibility has been a matter of some dispute. Thus some writers claim that it resides principally in the glans penis. Acton, however, questions the accuracy of this theory, and relates a case which apparently contradicts it, as follows: "Some time ago I attended an officer on his return from India, who had lost the whole of the glans penis. This patient completely recovered his health, the parts healed, and a considerable portion of the body of the penis was left. I found, to my surprise, that the sexual act, was not only possible, but that the same amount of pleasure as formerly was still experienced. He assured me, indeed, that the sexual act differed in no respect—as far as he could detect—from what it had been before the mutilation."

That the seat of sexual sensibility does not alone reside in the glans penis is conclusively shown by the practices of certain masturbators, who, when they fail to find gratification from the ordinary methods of manipulation are able to bring about an orgasm by titillating the deeper portions of the urethra. In the case related by Acton it is hardly probable that the patient prior to the mutilation had been in a perfectly normal condition as regards the sexual function prior to the mutilation. It is probable that through the medium of external impressions transmitted by the eye, ear, and touch, the sympathetic system assumes a special function. It is hardly probable that sexual impressions are transmitted altogether through the ordinary sensitive nerve filaments. It is well known that emotional excitement produces a profound impression upon the sympathetic nervous system. The nervous filaments of the sympathetic supplied to the generative apparatus, and particularly to the prostatic sinus, are in all probability the principal seat of sexual sensibility. It is possible that through their influence reflex impressions heighten the ordinary sensibility of the part. The secretory function of the testes, and the sensibility of the prostatic sinus, are stimulated not only by reflex impressions received through the medium of the special senses already mentioned, but also through the sensitive nerves distributed to the delicate mucous membrane covering the glans penis.

The explanation advanced by Köbelt is as follows: "Accumulation of blood causes, whenever it occurs in the body, a gradual augmentation of sensibility; but in this case the glans penis, in passing from a non-erect

state to the condition of complete turgescence, becomes the seat of a completely new and *specific sensibility*, up to this moment dormant. All the attendant phenomena react on the nervous centres. From this it appears that, in addition to the nerves of general sensibility, which fulfill their functions in a state of repose, and also during erection, although in a different manner, there must be in the glans penis, special nerves of pleasure, the particular action of which does not take place, except under the indispensible condition of a state of orgasm of the glans. Moreover, the orgasm once over, the nerves return to their former state of inaction, and remain unaffected under all ulterior excitement.

"They are, then, in the same condition as the rest of the generative apparatus; their irritability ceases with the consummation of the act, and, together with this irritability, the venereal appetite ceases also to be repeated, and to bring about the same series of phenomena at each new excitation."

The alleged characteristic appearance of the masturbator has been over-estimated by the respectable physician, as well as the quack. In extreme cases, with other causes of debility in operation at the same time, the masturbator is apt to present an unmistakable appearance, but in the majority of cases in boys, and always in girls, there is nothing to be learned from the physiognomy. In cases which seem to present certain peculiarities, I have come to recognize two classes, viz.: the over-grown clownish, but robust lad, with sheepish expression, but heavy, almost stupid intellect, and the slender delicate and intellectual lad of refined ways and sensitive nervous temperament. The first, has inevitably a greasy skin, with plentiful acne, but excellent color; the second, a sallow or pale complexion and sunken eyes, with heavy circles about them. The clownish lad rarely acknowledges his fault, but the more refined lad is quite apt to hint at it voluntarily in a round-about fashion, especially if he already feels the bad effects of the vicious practice. Unfortunately many boys will consult the doctor on some trivial pretext, and become discouraged, because he does not intuitively detect the real difficulty. Young lads have so expressed themselves to me when finally confronted with a direct accusation.

I should greatly regret if anything that has been so far said, should lead you to over-estimate the evil effects of masturbation. Quack literature has done much to foster a horror of the results of the practice, and has done much injury, but it must be confessed that if it were not for such publications, the average boy would be long in learning the evils of masturbation, hence the exaggeration of the quack is not wholly non-productive of good. If physicians would be less derelict in their duty, our youth would not be compelled to resort to quack literature for alleged or real information upon the sexual function. Instruction might be given which would point out the dangers without exaggerating the results.

In speaking of the effects of masturbation, Mr. Acton expresses himself as follows: "Daily experience teaches us that the evil habit is attended with the worst physical consequences.

"At first we remark but little local irritation of the canal of the urethra. Pain may occur in making water, as well as a frequent desire to empty the bladder; the orifice of the meatus is frequently found red, and ejaculation, which before could only be excited by much friction, now takes place immediately; the secretion is watery, and even slightly sanguinolent, and emission is attended with spasm. A sense of weight is felt in the prostate, perineum, or rectum, and anomalous pains are often complained of in the testes. Nocturnal emissions become very frequent, and are easily excited by slight erotic dreams. These at first are attended with pleasurable sensations, but later the patient is only aware of ejaculation from having his attention the next morning attracted to it by the condition of his linen. In other instances the semen does not pass away in jets, but flows away imperceptibly. In some cases it makes its way back into the bladder. Other patients will tell you that emissions have ceased to occur, but on going to stool, or on the last drops of urine passing from the bladder, a quantity of viscous fluid, varying from a drop to a teaspoonful, dribbles from the end of the penis, and exposed to the microscope, may furnish spermatozoa in greater or less numbers.

"The vicious habit having impaired the growth, health, and intellect of the patient, ceases often to be involuntarily indulged in, because pleasure is no longer derived from it. The drain on the system during defecation or micturition, however, as I have stated above, continues, and what depended at first on an artificial excitement, is kept up by the irritation or inflammation of the urethra, vesiculæ seminales, and spermatic ducts. The too frequent irritation of the testes causes badly eliminated semen to be secreted, which is at once emitted. The mucous membrane is more sensitive than usual, acquires an irritability like that often seen in the bladder, and which irritability appears more or less general. I may mention here that pleasurable sensations seldom attend the expulsion of ill-conditioned semen, probably depending on over-abuse of the sensations, which become subsequently blunted. The patient is now frequently reduced to a state of complete bodily and mental impotence."

The majority of reputable surgeons will hardly accept this description of the effects of masturbation as applying to any but exceptional cases. Obviously there are many difficulties in the way of our determining the precise relation of certain morbid symptoms of masturbation. While the quack has overdrawn the evils of the habit from motives of a purely mercenary character, respectable medical men have been too much inclined to go to the other extreme and either ignore the subject entirely, or pass it by as a matter of trivial importance. Mr. Acton is a notable exception to the

rule, but has perhaps presented the subject more forcibly than it deserves. Aside from this tendency on the part of this eminent authority, there is but one criticism to make regarding his work upon the subject,* and that is, that it savors somewhat of a popular treatise.

Admitting that visible permanent effects are relatively rare, there are still some results worthy of attention:

The first effect in confirmed cases, is a general flabbiness and lack of tone in the generative apparatus. The penis and testes are relaxed and flabby, and the scrotum, pendulous; varicocele often exists. Great sensitiveness of the urethra, and especially of the prostatic sinus are usual, and this is a source of pseudo-impotence in many cases by producing premature ejaculation. According to Lallemand, thickening, degeneration and often atrophy of the ejaculatory ducts, seminal vesicles and seminal tubules are sometimes seen. Such cases are rare, but are occasionally to be observed in some cases of "masturbatory insanity." Sensibility of the prostate is generally increased, and I believe that confirmed masturbators are likely to develop prostatitis, cystitis, or epididymitis, during an attack of gonorrhœa.

The symptoms of masturbation in children and youths are, it seems to me, by no means as clear as some authors would have us believe. Thus Lallemand remarks as follows: "However young the children may be, they get thin, pale, and irritable, and their features become haggard. We notice the sunken eye, the long, cadaverous-looking countenance, the downcast look which seems to arise from a consciousness in the boy that his habits are suspected, and, at a later period, from the ascertained fact that his virility is lost. Habitual masturbators have a damp, moist, cold hand, very characteristic of great vital exhaustion; their sleep is short, and most complete marasmus comes on; they may gradually waste away if the evil passion is not got the better of; nervous symptoms set in, such as spasmodic contraction, or partial or entire convulsive movements, together with epilepsy, eclamsy, and a species of paralysis accompanied with contractions of the limbs."

"When a child, who has once shown signs of a great memory and of considerable intelligence, is found to evince a greater difficulty in retaining or comprehending what he is taught, we may be sure then it does not depend upon indisposition, as he states, or idleness, as is generally supposed. Moreover, the progressive derangement in his health and falling off in his activity, and in his application, depend upon the same cause, only the intellectual functions become enfeebled in the most marked manner."

It is to be remembered that while there is some consistency in this overdrawn account of the appearance and physical condition of the masturbator the cases which it will fit are certainly few and far between. *As a*

*"The Reproductive Organs, etc."

matter of fact, in a great majority of instances of masturbation the physical effects are not sufficiently marked to attract attention. Even in these cases, however, a permanent impression may be made upon the constitution of the individual by virtue of which he is less strongly organized, more susceptible to disease, less capable of entering upon the battle for existence than boys who have masturbated but little, if at all. It would seem that sexual capacity and enjoyment in after life may be considerably impaired as a consequence of masturbation in youth, although the habit may have made apparently no physical impression sufficiently pronounced to attract attention.

Hyperæsthesia of the nerves of sexual sensibility with relaxation of the mouths of the ejaculatory ducts and dilatation and hyper-secretion of the urethral and prostatic follicles are unquestionably frequent results of masturbation. It would seem that the over-stimulation and freqent emptying of the seminal vesicles incidental to the vicious habit causes them to acquire an intolerance of their contents; this results in nocturnal emissions and premature ejaculation during normal intercourse. These effects, however, will in the majority of instances disappear as the individual grows older, if the habit be discontinued.

As regards the prognosis in children, Lallemand admits that it is favorable. His remarks are as follows: "In respect to the evil habit in children, it is easy to re-establish the health, if we can prevent the little patient masturbating himself, for at this period the resources of nature are great, it is not so easy, however, to repair the injury inflicted on nutrition during the development of the body; nevertheless the consequences disappear readily, and all the functions become re-established; not so, however, when masturbation occurs after puberty."

In the female, enlargement and hypersensitiveness of the clitoris and labia minora with a reddened hyper-secreting condition of the mucous membrane are usual. So sensitive may the parts become, that the most careful examination may produce an orgasm.

The mind is usually disturbed, but more from a sense of shame, and a fear of possible results, than from physical cerebral disturbance. Naturally, the frequent discharge of nervous force produces more or less debility and nervous irritability.

[TO BE CONTINUED.]

Mississippi State Medical Association.—The following named officers have been elected: President, J. W. Gilbert, Verona; First Vice-President, W. M. Paine, Aberdeen; Second Vice-President, B. F. Duke, Moss Point; Secretary, J. R. Tackett, Meridian; Assistant Secretary, C. H. Tratter, Bogue Chitto; Corresponding Secretary, D. T. Humphreys, Erwin; Treasurer, J. F. Hunter, Jackson.

ORIGINAL ARTICLES.

SOME POINTS IN OPHTHALMOLOGY.*

By JAMES MOORES BALL, M.D., of St. Louis.

THE first point to which I wish to call your attention concerns some histological discoveries which have been made recently by Mr. Treacher Collins, of London, and which have been published in book form within the last two months.

Of the many subjects which have been illuminated by the patient labor of Mr. Collins, and which formed the basis of his lectures before the Royal College of Surgeons in 1894, I shall mention but two. The first of these concerns the ciliary body, and particularly that portion of the ciliary body which contains the ciliary glands. By a peculiar method of bleaching sections of the eye, Mr. Collins was enabled to remove the pigment. Bleached sections show that the pigment epithelial layer, from the optic disc to the ora serrata, consists of a single layer of cells. In the ciliary body are numerous processes or down-growths, each consisting of a group of cells; these down-growths vary in number and shape in different parts of the ciliary body, being most numerous just in front of the ora serrata and at the junction of the plicated and non-plicated parts. By examination of a large number of sections, bleached and unbleached, some of which were cut on the flat, Mr. Collins found that the cells of these projecting processes are arranged in rings with a central lumen. That they are glands seems certain. That they secrete the aqueous seems undoubted. "If they be glands", says Mr. Collins, "we should expect to find them subject to the same diseases as secreting tubular glands in other parts of the body. We should expect to find them subject to catarrhal and suppurative inflammation; we should expect to find over-growth of them in cases of chronic inflammation, we should expect them to be subject to cystic formation, and for them to be the starting points of tumors presenting a glandular character, either adenomata or carcinomata. I will now proceed to show that these expectations are actually fulfilled."

Then, in a delightfully logical way, Mr. Collins proceeds to show that the disease which has been called serous iritis is due to inflammation of the ciliary glands; that in sympathetic ophthalmia and syphilitic uveitis the change is located in the glandular region of the ciliary body; that in suppurative and plastic inflammation of the secreting area of the ciliary body there is often a considerable over-growth of pigment epithelium of the ciliary body, and this over-growth presents a characteristic arrangement of its

*Read by title before the Missouri Medical Association.

cells in the form of cylindrical gland-like tubes; that cysts form from the distention of the glands; and, finally, that adenomata and carcinomata occur here.

GLIOMA OF THE RETINA NOT SARCOMA.

The second point which I desire to mention in connection with Mr. Collins' discoveries, is his assertion that glioma of the retina is not sarcoma. The accepted view of the present day is, that glioma retinæ is a small round-celled sarcoma. The differences between glioma and sarcoma are clinical, histological and embryological. Clinically, we find, first, a difference in the age at which these growths appear. Sarcoma may come at any age. Glioma, with the exception of one case recorded by Mervill in which the patient was twenty-one years of age, probably has never been seen later than the eleventh year. Most of the cases of glioma come before the third year. Second, secondary growths of sarcoma are often met with in distant organs, particularly the liver; while glioma extends by contiguity, attacking the bones of the face and orbit, and reaching brain-ward. Third, sarcoma occurring in the eye is never bilateral; in twenty per cent. of the cases of glioma both eyes are involved. Fourth, sarcoma is less malignant than glioma; but in the case of glioma "recurrence never takes place after three years immunity from the date of its removal." In the case of sarcoma of the choroid the patient may live for ten years after the primary operation, and finally die from melanotic growths in the liver. Being pigmented, the disease is necessarily secondary to that in the eye. "Histologically", says Mr. Collins, "the cells of glioma of the retina differ from those of any round-celled sarcoma in having larger nuclei, less cell-protoplasm around the nucleus, and little spicules projecting from them. In glioma of the retina there is a much greater tendency for the cells composing it to undergo degenerative changes than in a sarcoma." * * * * * "The cells in glioma of the retina are always grouped around the blood-vessels, those nearest the vessel-walls staining the best; they are always round with the exception of some which are occasionally met with arranged in rings, one cell thick which are cylindrical in shape. None of the cells in glioma are ever spindle-shaped. In this again it differs from sarcoma, for wherever a round-celled sarcoma occurs, there also a spindle-celled growth may occasionally be met with." Embryologically, there is much difference between glioma and sarcoma. Sarcomata arise in tissue derived from the mesoblastic layer of the blastoderm. The only parts of the retina derived from the mesoblast are the blood-vessels; "the nervous elements of the retina and its neuroglia are formed from the neural epiblast." In the examination of microscopic sections of the eye of a three months' fœtus, Mr. Collins was struck by the fact that the layers of the retina are quite undifferentiated, being composed of a mass of round cells with large nuclei and little protoplasm, some having small spicules projecting.

"These cells closely resemble those which are met with in gliomatous tumors of the retina". So close is this resemblance that a pathologist would doubtless call these retinal cells gliomatous if not informed otherwise.

I believe, Gentlemen, that you will agree with me, that Mr. Collins gives strong reasons for differentiating between glioma and sarcoma.

THERAPEUTIC VALUE OF SCOPOLAMINE.

Scopolamine has come to stay. To my mind, it is the best of our mydriatics. It acts promptly and efficiently, dilating the pupil ad maximum within fifteen minutes, and paralyzing the accommodation within one hour. In almost every case the patient regains the ability to read within seventy-two hours. Thus, in its effect upon the accommodation, scopolamine stands about midway between homatropine and atropine. The cyclopegic effect of homatropine lasts about twenty-four hours; often it fails to paralyze the accommodation. Atropine will paralyze the accommodation with certainty, and the effect lasts ten days, often two weeks. Repeated instillations of homatropine or atropine are necessary. In the case of scopolamine one instillation of one drop of a $\frac{1}{5}$ per cent. solution will do the work. Less conjunctival irritation follows scopolamine than the other drugs mentioned. As a mydriatic for refraction work it is *facile princeps*. Valuable as scopolamine is in this respect, I think it even more useful in iritis, for here one drop twice a day will often dilate the pupil when repeated applications of atropine fail. Oliver, of Philadelphia, has recently called attention to the value of scopolamine in plastic iritis. I would urge its use in all forms of iritis (except serous). Recently in a case of so-called gummatous iritis which entered the St. Louis City Hospital after the disease had lasted ten days, I found scopolamine of great value.

A word of caution. Do not use this drug lavishly, for it will produce toxic symptoms if applied carelessly. In the strength of $\frac{1}{5}$ of 1 per cent. use only one small drop. Attention should be given to the caliber of the eye-dropper and a small one selected or made. In children and in delicate adults a weaker solution—$\frac{1}{10}$ of one per cent.—will be sufficient.

Von Kruedener, (*St. Petersburg Med. Woch, 1894., No. 9*), claims that scopolamine does not occasion cerebral phenomena like those of atropine, and in glaucoma it does not cause increase of intra-ocular tension: Two statements which I believe to be incorrect.

ARTIFICIAL RIPENING OF CATARACT.

The next point which I ask you to consider is the artificial ripening of cataract, an operation which is not performed as often as it should be.

Probably many of the members of this Society can remember to have seen middle-aged patients, the subjects of cataract, in whom the disease progressed with exasperating slowness, and whose vision was greatly impaired. A time comes when the sufferer can no longer use his eyes in the pursuit of his daily vocation, while the surgeon, from the character of the

cataract, justly concludes that complete lental opacity will not take place for a long time. Incomplete lental opacity exists in those cases of cataract in which we find an iris shadow, a considerable red reflex when the ophthalmoscope is used and the pupil dilated, and a striated appearance exists on examining the lens by oblique illumination. With the upright image, making use of a glass of 10. or 12. D. strength, one can see an opacity of the lens, or of the capsule, or of both. Possibly you may have prescribed weak atropine drops for the purpose of dilating the pupil, so that rays of light might pass through the comparatively clear peripheral portion of the lens, and thus a better visual acuity be gained; whilst you advised the sufferer to wait patiently until the cataract should mature, and then an extraction be made. For generations it has been accepted doctrine in ophthalmology not to operate on unripe cataract. Now, things are different. If the cataract be unripe, and the opacity extend but slowly or be almost stationary, we do not hesitate to ripen it by artificial means.

In performing an operation for ripening immature cataract we aim to apply force in such a way that the lens fibres will be disarranged and aqueous can gain access to them. The disarranged fibres absorb aqueous, swell up, and become opaque. Many years ago my old teacher, Snellen, noticed that, in those cases where preliminary iridectomy was done a cataract was better matured than otherwise. The mere draining of aqueous and grasping of the iris and pulling it out sufficed to set up an increased opacification of the lens.

I have not the time to go into the technique of this operation. Permit me to say, that in an experience covering a dozen cases of artificial ripening I have had no bad results, and in one case only was there iritis following. This yielded to scopolamine and did no harm.

THE PRESCRIBING OF GLASSES BY JEWELERS, OPTICIANS, PEDLERS, AND OTHER INCOMPETENTS.

This is a point worthy of the fullest discussion. That we, with our nineteenth century civilization, should entrust our eyes to the tender mercies of jewelers, street-venders, charlatans and incompetents, is passing strange. This should be stopped. How? By the authority of the State. Adjusting glasses is practicing ophthalmology; practicing ophthalmology is certainly practicing medicine, and in the great State of Missouri the practice of medicine is supposed to be under the control of a statute under which the State Board of Health operates.

3509 Franklin Ave.

The Medical Association of Georgia at its meeting in Augusta, April 15, elected the following officers: President, Dr. Geo. H. Noble, of Atlanta; First Vice-President, Dr. J. Bellorgan, of Augusta; Second Vice-President, Dr. R. B. Barron, of Macon; Treasurer, Dr. E. C. Goodrich, of Augusta; Secretary, Dr. R. H. Taylor, of Griffin, Ga.

THE VALUE IN MONEY OF JENNER'S DISCOVERY.*

By GEORGE HOMAN, M. D., of St. Louis.

Formerly Health Commissioner of St. Louis; formerly Professsor of Hygiene in the St. Louis Medical College.

THE spirit of a practical age, much given to business and the measuring of all things by financial standards, prompts a brief inquiry into the probable cash value of preventive vaccination against small-pox during the last 100 years. Of course no more than a suggestion can be offered here for want of time, and by reason of the nature of the problem itself. "What's done we partly may compute, but never what's resisted," and these lines of Burns' apply to sanitary affairs as aptly as to those of a moral nature.

In endeavoring to find a sure foundation from which to reckon the pecuniary benefits to the human race of Jenner's work we have to take account of the not fully perfected public health record of the present centennium and compare it with the still less perfect record of disease and death for the 100 years next preceding it.

In England during the last half of the eighteenth century it is stated by the best authority that the constant annual rate of mortality from small-pox was 3,000 for every million of population, and for Europe generally and among the people of this hemisphere the rate certainly was not any less. It is also claimed on good authority that one-third of the entire population of England was badly pock-marked during the last century, while to-day it is rather a rare thing, even in a large city like St. Louis, to see a person whose face has been disfigured by that disease. Following the general introduction of vaccination into England the death rate from small-pox fell to about 300 per million of population, this rate of course being based, as was the other, on the experience of extended periods of time.

If one-third of the whole living population showed the marks of small-pox, and as the known death rate of this disease at that time was about 40 per cent. of the total thus affected, it follows that 45 per cent. of the population experienced small-pox in severe form; 18 per cent. of the entire population dying of this plague and 27 per cent. being crippled or palpably marked; to which must be added an undetermined proportion of cases of a type so mild as to escape notice or recognition amid so many grave ones, but which would serve to spread the disease equally well.

The money value of the time lost by those who recovered, and of the lives of those who perished, is almost incalculable, although human life was held more cheaply then than now; but the average valuation put upon chattel slaves of that period will shed some light on the cash loss to England from this one disease during the eighteenth century.

*Read before the City Hospital Medical Society, May 21, 1896.

The price of slaves in the American market at that time was about $200 apiece, which is only one twenty-fifth part of the value of a human life as now fixed by statute in Missouri, to-wit, $5,000; and as the population of England during that century ranged betweeen six millions and nine millions, with a constant annual loss of 3,000 lives per one million of people from small-pox, the average yearly total of deaths was over 20,000, representing a cash loss of more than $4,000,000, even reckoning each life to be worth no more than that of a negro slave; and it must not be forgotten that the disease swept all classes—kings, queens, princes, prelates and nobles all falling before it. The money value of the time lost through illness from the disease with its prolonged convalescence in the same country cannot be computed, but it would certainly equal the death losses.

Under such a tremendous waste of vital power and resources it is not a matter of wonder that population increased but slowly, and that the most vigorous nations long felt the effects of the drain from this destructive plague.

War is always an efficient factor in the spread of diseases, and the peace that came to Europe in the second decade of this century, together with the favor into which vaccination quickly grew, were the influential agencies in bringing about the change which the nineteenth century has witnessed in the curbing of small-pox, and the benefit of this change has been most strikingly shown wherever vaccination has been made compulsory. For example, the law of Prussia is that every child that has not had small-pox must be vaccinated within the first year of its life, and every pupil in a public or private institution must be revaccinated during the year in which his or her twelfth birthday occurs.

This law became effective in 1874, and witness the result! Before that time the small-pox mortality ranged from 150 to 200 per million of population, but since the year mentioned the deaths have decreased until now they vary from 3 to 36 per million, and not a single death from small-pox occurred in the German army for the period of eight years ending in 1884.

The price of this nearly complete exemption was diligent, effective vaccination, and its cash value to the German people and the world cannot be estimated.

Other nations have reaped like pecuniary gain from the strict enforcement of Jennerian inoculation, and have likewise been punished for neglecting it. For, if this precaution be long neglected even among people otherwise advanced in civilization, the good soil for small-pox will accumulate, and when the seed finds the soil, with concurrent favoring conditions, the fatal experience of the last century will surely be repeated.

Communities in this country have had this lesson severely taught them within a generation, as Philadelphia, which city, early in the seventies, suffered a visitation of small-pox the money cost of which was counted

to foot up $20,000,000 in direct and contingent outlay and losses. And, more recently, Detroit, Chicago and Milwaukee have received sharp lessons which touched their pockets severely on the peril of default in vaccination.

This work of precaution cannot be done without a liberal expenditure of money, but no investment can pay better than to make the people of a city or State practically proof against variola: and, to judge by the experience of recent years, St. Louis may be regarded as approaching that condition as nearly as may be possible in the absence of compulsory law.

This condition has been put to the test with results that speak for themselves, and at a financial cost inconsiderable in view of the ends secured.

Unflagging vaccination of the local school population and of the inhabitants of tenements, lodging houses, etc., has been a prime object kept in view by the Health Department, and while the writer was in charge advantage was taken of every opportunity to push this work. The value of this achievement was apparent in the spring of 1893, when small-pox showed itself among the attaches of racing stables at the Fair Grounds, and its appearance seriously threatened the success of the spring meeting. But the disease was defeated by promptly applied measures at a cost of $2,200 of public money. Had small-pox gotten a foothold the meeting would probably have been abandoned with great loss to St. Louis in money and sanitary prestige.

Again, in the winter of 1894, the attack was renewed by the disease with all the conditions of season, temperature, locality and class of population seized in favor of its spread. But no epidemic occurred, although a longer and harder fight was required to overcome it, several hundred cases occurring, with a death rate of about 20 per cent. But the business of the city went on unhindered, there was no epidemic, nor general uneasiness, although, as before stated, the disease timed its attack when a number of conditions were favorable to it, and its overthrow involved the extra outlay of only about $10,000. What the cost in life, time, business, and added public expenditure would have been had preventive vaccination been neglected in this instance cannot be told, and could only be guessed at from past experience. But it suggests a hint of the magnitude of the debt of mankind to that immortal man, the centennial of whose first human vaccination this Society will celebrate this evening.

The immensity of the volume of wealth produced and accruing through lives saved, health preserved, and business successfully pursued during the 100 years since May 14th, 1796, is in no small measure due to Edward Jenner, the modest physician and true philosopher, who lived and labored in the cause of science and truth, and in the fullness of time gave into the hands of his fellow men a weapon against disease and death the worth of

which to the world in money is past the power of calculation, and to which the sums voted him by a grateful nation are as but a drop in the ocean. Not only did he deserve well of his country and gain just recognition while he lived, but his fame rests secure for all time as one who, perhaps, builded even wiser than he knew, and who certainly laid well and truly one of the foundation stones of the modern edifice of preventive medicine and sanitary science. The practical outcome of his work in business value was so manifest that it could appeal even to the most sordid man of affairs and serve to convince him that a free expenditure of money toward the destruction of disease was a wise investment and great gain, for such work is fundamental, and must always underlie a really prosperous and progressive State.

Indeed, and apart from the priceless boon conferred on humanity through the means of deliverance afforded from a foul and fatal pest, a conspicuous merit of Jenner's work was that it became an object lesson of striking interest to the business world on its own level of pounds and pence, bringing sentiment and science in close touch with trade and traffic, and showing them how close their interests lie—one to point the way of health and safety, the other to furnish the means to compass the ends of preventive medicine.

The welcome which was accorded to Jenner's announcement, and the substantial reward he received from the British Government, were probably due as much to the impression its merits made on the business sense of the nation as to the weight given it in scientific circles; and while this timeliness of opportunity and fitness of season could hardly have been in his mind, still they concurred most happily to give him and his work the distinction and fame and rewards so richly earned and so worthily bestowed both by his countrymen and the world at large.

The Kansas Medical Society has elected the following officers: President, Dr. F. M. Daily, of Beloit; First Vice-President, Dr. H. Z. Gill, of Pittsburg; Second Vice-President, Dr. Melvin Collins, of Oxford; Recording Secretary, Dr. G. A. Wall (for 3 years); Corresponding Secretary, W. E. McVey, Topeka; Librarian, Dr. S. G. Stewart, Topeka.

The Missouri State Medical Association met at Sedalia and elected the following officers: President, John H. Duncan, M.D., of St. Louis; First Vice-President, C. H. Wallace, M.D., St. Joseph; Second Vice-President, John M. Langsdale, M.D., Kansas City; Third Vice-President, J. J. Russell, M.D., California; Fourth Vice-President, Thomas Chowning, M.D., Hannibal; Fifth Vice-President, J. H. Britts, M.D, Clinton; Recording Secretary, Jabez N. Jackson, M.D., Kansas City; Assistant Recording Secretary, Thos. Hall, M.D., Marshall; Corresponding Secretary, F. Dressel, M.D., Sedalia; Treasurer, W. E. Evans, M.D., Boonville. The next meeting will be held at St. Louis, the third Tuesday of May, 1897.

CONDYLOMATA LATA.

By A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

AMONG the phases of syphilis which are observed there is none perhaps which is more interesting than the secondary. This offers a greater number and a larger diversity of lesions than any other, and an additional source of interest lies in the fact that these lesions are very apt to be mistaken for certain skin diseases, in many instances at least. Among the striking lesions which are apt to be misunderstood, may be included condylomata lata, and this is in great part due to faulty nomenclature which has been adopted and to misleading names which have been carelessly applied. Before entering into a consideration of the symptoms which characterize the lesions it may be well to devote a few words to this faulty terminology. The most common name applied is that of *venereal warts*. As all these growths are of venereal origin the appellation is incomplete and inexact. *Condyloma* is also incomplete as a term since it leaves doubt as to the nature of the lesion. On the other hand, the terms *condyloma acuminatum* and *condyloma latum* leave no reasonable room for doubt as to the true nature of the lesions spoken of when occurring in a case. The former is non-syphilitic, the cauliflower excrescence or cock's comb growth, whereas the latter is essentially luetic and pathognomonic of the systemic infection which is present. It is on this account that both conditions should be carefully observed as certain intermediate stages occur which might lead to serious error, not only in diagnosis, but in treatment as well unless the essential differential points be mastered before attempting a differentiation. It is not a difficult matter to master the chief points of distinction existing in typical forms, but in those somewhat aberrant the affair becomes more complicated, and yet by remembering the essential points of the typical forms and observing the cases which present themselves quite closely, the liability of making a mistake is reduced to a minimum.

Condylomata lata are also known as cutaneous mucous patches and as moist flat papules or the wet flattened papular syphilide. It is a question in the minds of some as to whether mucous patches of the skin are in reality flat papular syphilides occurring in portions of the skin which are moist or lesions *sui generis*. This subject has been pretty thoroughly considered by Ravogli[1] who concludes in favor of the latter, and I have had occasion to observe flat papules and mucous patches developing simultaneously upon the hands of patients. However, a consideration of this question in all of its aspects would occupy more space than could be devoted to it here. The evolution of condylomata lata is such as to lead one to the same conclusion in regard

[1] A. Ravogli. Mucous Plaques. *St. Louis Medical and Surgical Journal*, December, 1892.

to their true nature and their subsequent development would seem to bear out the analogy still further. Many characteristics present themselves which are strongly suggestive of the specific patches occurring upon mucous membranes and *mutatis mutandis* their general behavior is the same. A feature in their history which would seem to bear out the analogy still more is that the period of their appearance corresponds almost exactly with that of the buccal mucous patches and those of the nasal passages. When developed fully the mucous patches will be found somewhat ulcerated superficially and beginning to take on a destructive action. All of

FIG. I. Condylomata Lata in the Male.

which is more or less evidence of neglect, want of cleanliness and inefficient treatment.

Mucous patches of the skin are met with in those portions of the integument which are so situated as to possess both heat and moisture. The most common localities are the genital region, the perineum, the internatal cleft, the cruro-natal fold, the external genitalia, the interdigital spaces, etc. Males and females are both liable to be attacked by these lesions and those who are not overcleanly in respect to their bodies are more susceptible than those who are. However, ablutions are by no means prophylactic for the

moisture furnished aids in causing a growth of the apparent vegetations. However, there is no doubt whatever that those who are not careful of their personal cleanliness will have condylomata occupying much more extensive areas than those who are. Despite the fact that this is the general rule, I have had occasion to observe some of the most extensive occurring in women whose care of their persons was certainly above reproach.

In all forms of condylomata lata the lesions are more or less symmetrical. They are always so when occurring in parts which come in apposition with one another, and there is no question that if unilateral at the beginning, contact with an opposing surface makes it develop a corresponding lesion. This is no doubt due to the liquid exudation which has a more or less corroding influence, and thus influencing a soil prepared for its production, the condyloma latum makes its appearance.

The appearance of condylomata lata in the male differs in several respects from that presented in the female. This is due, of course, to anatomical differences in large part as well as to the different physiological conditions which prevail. In the male the condylomata have a tendency to be more or less rounded and are about the size of a finger-nail. They are also more or less flat and do not have a tendency to luxuriate in a vertical direction. A good example of a fairly-well developed case is given in Figure 1. It may be noted that the thighs are affected on their inner surfaces and, contrary to what is often seen in cases of some length of standing, the scrotum is not much involved, but one plaque being visible on the left side. As is plainly visible each lesion is sharply defined and its contour is clear cut. An almost constant occurrence in such cases is also apparent in the figure—the oval margin is encroached upon by plaques and this is easily accounted for by the fact that here there is a constant moisture to a greater or less degree as we find at all mucous outlets. The lesions are of a pinkish color with a whitish opalescence overspreading it and giving an appearance as if a white liquid had been spread thinly over them. The method of distribution of these lesions varies a great deal from that observed in females as will be seen when the latter are described. One noticeable difference in the lesions as they affect the two sexes is that they do not possess the disagreeable odor to such an intense degree in males. One factor which may contribute to this is that there is not so much moisture and secretion, and furthermore, cleanliness is more easy to maintain. Another reason is that the lesions themselves never attain the size and proportions which they do in women.

Condylomata lata in the female have always been a subject of interest from the apparently appalling appearance which they present. They are almost always of a comparatively large size from the time lost in applying for treatment, this being due in great part to the reluctance a woman feels in exposing such a lesion to the physician, aided by the fact that she is

conscious of the nauseating smell which accompanies it and which no efforts of her own seem able to dissipate. Two principal forms of the trouble may be noted. In the first one it is the vulvar orifice which seems to be principally implicated. A typical case of this nature is shown in Figure 2. Here it will be noted that the condylomatous mass is elevated to a greater or less extent on each side of the vulva, a more or less narrow raised bridge joining the lateral masses and thus forming an irregular elliptical growth. Extending downwards and backwards from the posterior commissure a much less marked condition proceeds backwards and surrounds the anus. At the upper and lower portions of the lateral masses a greater or less well defined sulcus divides them corresponding rather indefinitely with the vulvar cleft. In the other form a somewhat different appearance is presented.

FIG. II. Condylomata Lata in Female, around Anus.

The vulva is very little implicated, the genito-crural fold being the seat of a few small condylomata. From the posterior commissure, however, backwards to a line corresponding to the base of the coccyx a large, elevated plaque presents itself and it possesses all the characteristics observed in the lesion occurring about the vulva. Such a case is very clearly shown in Figure 3. In both forms the eroding power of the secretion may be distinctly made out and a reference to Figures 2 and 3 will plainly show this in the symmetrical outlines surrounding the condylomatous masses.

The color of the lesion in females is pinkish, dirty in appearance, and covered with a mucoid or muco-purulent secretion of a most foul and penetrating odor which is distinctly *sui generis*. There is but very little rough

usage necessary to cause bleeding, sometimes profuse in character. Sensibility is somewhat obtunded, as this will cause but very little or slight pain. Pain, however, is complained of as being caused by the friction of the thighs which occurs in walking, and this also contributes to increase the size of the lesions on account of the stimulation which is afforded as well as the opportunity which such exercise affords to the secretion to spread itself over adjacent parts. Another irritating factor which is almost constantly present in these cases is a muco-purulent or purulent form of leucorrhea.

Whilst the secretion of the condylomata has a great influence in spreading the trouble upon the affected individual its corroding influence

FIG. III. Condylomata Lata in the Female, around Vulva.

is none the less marked as a very active factor in the transmission of syphilis. There is no doubt whatever that the mucous patch, whether it be of a mucous membrane or of the skin, is one of the most active disseminators of the disease. The secretion of condylomata lata has a distinctly corrosive action upon the thin epithelium of the glans penis and preputial mucous membrane thus creating an absorptive surface which is readily receptive of the syphilitic virus into the organism of the male. Similarly, the delicate mucous membrane on the inner side of the labia majora renders the female liable to the acquirement of syphilis. In either case, it must not be

forgotten that the resultant lesion is an erasive chancre, and that the syphilis which has been acquired will follow the usual course observed in the disease. There is no such thing as a mucous patch or condyloma being transmissible as such to an uninfected individual. These lesions are symptoms of the secondary stage of syphilis, and it can never precede the primary or infecting stage.

The development of condylomata lata is comparatively a rapid one, and their increase in size is also characterized by the same quality. On the other hand, their disappearance under proper treatment is equally or more rapid, and if properly carried out, there is no therapeutic method more satisfactory in its results. It is for this reason that I intend to dwell somewhat at length upon the different modes of treatment pursued, and then indicate that one which I have found to be the easiest, most rapid, and most satisfactory in my experience.

One thing which must always be borne in mind, is that internal treatment alone will not prove sufficient to cause condylomata lata to disappear. Local medication is absolutely necessary, and cauterizing agents, whilst largely used, are not among the best agents to employ. The first step necessary whatever application is used is absolute cleanliness of the affected parts. The next is to put on a protective dressing, preferably absorbent cotton, so as to prevent as much irritation as possible. Naturally the dressing is put on after the application of the local medicaments. Among the various remedies which have been employed may be mentioned chromic acid, the acid nitrate of mercury, carbolic acid, a one to five hundred solution of nitrate of silver and similar ones. After applying any one of them some inert powder is freely sprinkled over the lesions, and a dressing applied as indicated above. In my experience the most convenient as well as most efficient treatment has been the following: The patient is ordered to cleanse the parts thoroughly. If a female a warm bichloride vaginal injection of a strength of one in two thousand is taken. The external parts are then freely washed with a one to five hundred solution of bichloride. Following this calomel is freely powdered over all, and the cotton dressing applied. This treatment is to be pursued twice daily, and in a very few days, the trouble will have been found to have disappeared. Some prefer applying some form of mercurial ointment, but it is neither as cleanly, nor as efficient as the one just indicated.

The advantages of the method I have given, are that it is easy of application, and efficient, as well as rapid in results. Directly the solution has been applied, all odor disappears, and the liberal application of the powder in conjunction with the bichloride solution leads to the formation of nascent bichloride of mercury which is very active in its effects. The calomel keeps the parts dry, and this is one of the prerequisites to a cure of the condition. The rapid return to a normal condition is so rapid as to be as surprising as it is gratifying to both patient and physician.

THE PRACTICAL PERFORMANCE OF VACCINATION.*

By W. A. HARDAWAY, M.D., of St. Louis, Mo.,

Professor of Dermatology in the Missouri Medical College.

THE medical world believes, and this belief has been amply confirmed by a century of cumulative experience, that when Jenner vaccinated James Phipps on the 14th of May, 1796, he performed an act of incalculable benefit to the human race.

We revere Jenner as one of the greatest physicians and philanthropists, and we have unbounded confidence in the protective influence of cow-pox; yet, singular to say, and I say it with profound humiliation, the majority of medical men are ignorant alike of the science and art of vaccination.

This culpable ignorance is likely due to the apparent simplicity of the little operation, and the usually trivial character of the disease that it induces.

"If," declares Mr. Marson, "a little operation—little in practice, but very important in its results—well performed can save many lives, as most certainly it can, and prevent much suffering and sorrow, it should surely be done with the greatest care and in the best known way."

However vital it is to know how to vaccinate properly, it is of equal or greater importance to be familiar with the several phenomena or symptoms of the disease. If a farmer should plant turnips he would naturally expect that turnips, in due season, would come up; and he would be a very bad farmer indeed if he were unable to tell the difference should cabbages or radishes or even noxious weeds make their appearance instead. So the physician who plants vaccine germs should be able to tell the true from the false, and have an intimate acquaintance with the various features of the vaccinal disease.

This widespread ignorance of the symptomatology of vaccinia, together with the heedless performance of vaccination, is directly responsible for its occasional untoward results, its prophylactic inefficiency, and, as a consequence, the public scepticism as to its virtue, and the sometimes violent opposition to its practice.

The only cure for these evils lies with our medical schools, in which vaccination should be taught theoretically and practically, but where, as a matter of fact, with few exceptions, it is not taught at all, or only in a most perfunctory way.

Having said so much by way of preface, allow me now to consider, as briefly as may be, the question that gives the title to this paper, namely, certain considerations on the practical performance of vaccination.

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*Read by invitation before the City Hospital Medical Society, May 21, 1896.

1. Condition of the Person to be Vaccinated. Under ordinary circumstances the individual to be vaccinated should be in good health. Acute febrile processes markedly interfere with the normal course of vaccinia; but, on the other hand, chronic disorders, including syphilis, offer no bar. Intestinal and cutaneous affections decidedly contraindicate the operation. It is well to remember besides that certain disorders, such as eczema, for instance, are usually aggravated by vaccination, and may even be evoked by it. Measles and other exanthemata act the same role, and at once show that post vaccinal eruptions are not due to impure virus, as is often charged, but are the result of other conditions. It has been said that pregnant women should not be subjected to vaccination, but the opinion of the best authorities does not sustain this contention.

The rules as to the persons fit for vaccination are necessarily modified by circumstances; for if an individual be exposed to the risk of small-pox infection, it is a plain duty to disregard altogether any, or all, contra-indications; and even a child born in the midst of variolous contagion should be vaccinated at once.

2. Age. Since young children are the chief sufferers from small-pox—one-fourth of all fatal cases occurring in the first year of life, it is apparent that vaccinaton should not be delayed beyond a reasonable period.

It may be stated as a safe general rule that when the health of the child permits, the operation should be performed about the age of three months. This time of life is particularly suitable from the fact that it anticipates the dental epoch, which, with its irritations and derangements, might seriously interfere with the normal development of the vaccinia. Another not unimportant reason for selecting this age is that as hereditary syphilis is apt to show itself before this time, the vaccination cannot be accused of producing it—an accusation that ignorance or self-interest is bound to make.

3. Performance of the Operation. As regards the actual operation of vaccinating, I shall confine my remarks to a few suggestions that seem warranted by experience, and to whose neglect we owe much of the current bad or indifferent vaccination.

In the first place it is needful to insist that the operation of vaccination is as important in its way as any of the major operations of surgery, and that to avoid the danger of infection it should be performed under the strictest antiseptic precautions both for the patient and physician.

Since practically only bovine virus is now employed, it must be remembered that it is much less soluble than human albumen, and consequently when dry lymph is used it must be thoroughly revived with clean water or steam vapor to insure its absorption, and, moreover, if an abrasion operation is made, it must be patiently and gently rubbed in for a considerable time. The lack of these simple precautions accounts for most of the retardations in its taking, and also for the many complete failures.

Fluid lymph is always to be preferred when obtainable.

I have come to the conclusion from long observation that introduction of the lymph by puncture is by far the best method, and much less apt to give rise to bad results.

Ortega states that in an epidemic in Mexico, in 1890, the greater efficacy of vaccination by puncture over the abrasion methods was very apparent. Many cases presumably successfully vaccinated in the latter manner contracted variola or responded to revaccination, while neither of these events was usual after puncture. The pustules occurring in the scraping method he thinks were due to ordinary septic infection. At any rate, it must be admitted that abrasion does considerable violence to the skin, and certainly opens the door to infection.

Vaccinations should be done in the classical site on the arm, and never on the leg as a concession to fashion. The vaccinal wound should be protected by a thin layer of aseptic cotton wool, so as to prevent injury and the risk of extraneous infection.

Everyone is familiar with Marson's table, which shows so conclusively that both the quality and quantity of the vaccination bear a vital relation to subsequent protection from small-pox. Seaton says that in vaccinating by puncture not less than five should be made at a distance of one-half inch apart.

If abrasions are made the united areas of the separate cicatrices should amount to half a square inch.

4. Inspection of Results. Vaccination having been duly and properly performed, it is the duty of the medical man to see that the disease thus produced runs a normal and typical course. Nothing could be more unfortunate than an inefficient primary vaccination; for a false security is thereby engendered, which may not only be disastrous to the individual, but will bring the cause of vaccination into unmerited disrepute. The subsequent career of a vaccination should be watched with the same care and anxiety as the after treatment of any surgical operation. The physician should impress upon his patient the necessity for this watchfulness, and explain that a sore arm does not necessarily mean protection against small-pox; but that vaccinia runs a certain typical course, the various stages of which can only be properly appreciated by expert knowledge.

The English vaccination laws require that a vaccination should always be inspected on the eighth day following. Seaton urges that the patient should also be seen on the 11th and 12th days, so that we may be assured that the stage of areola, "the index of safety," has been passed satisfactorily. At any rate the vaccinator will have done but half his duty who fails to have his patient return at least the day week from the date of vaccination.

Yet another word: If physicians would increase the charge for vacci-

nation in some relative proportion to the importance of the operation, not only would the medical man himself take more interest in its success, but the patient would more fully appreciate its utility.

It may seem to some of you, perhaps, that I have laid too much stress on a subject that should be as familiar as the alphabet, but we all know, alas! too well, that these fundamental principles are constantly and wilfully neglected. I have, therefore, taken advantage of the opportunity so courteously offered by your society, to reaffirm the teachings of Jenner, and thus best honor his memory, and to ask your assistance in re-establishing an art that "duly and efficiently performed," may in a measure at least realize the noble dream of the master.

REMOVAL OF MYXO-SARCOMA GROWING FROM THE BASIC SPHENOID BY SPLITTING THE PALATE.*

By GILBERT BARLING, M. B., F. R. C. S.

Professor of Surgery in Mason College, Surgeon to the General Hospital, Birmingham, England.

AN ACCOUNT OF A CASE WITH COMMENTS.

W. G. male, aged 23, was admitted to the General Hospital May 25, 1895, with a tumor occupying the naso-pharynx and obstructing both nostrils.

His history was as follows: He had been very subject to cold in the head for ten years. About a month before admission he consulted a doctor for persistent running at the nose and headache. He was treated by irrigation with a nasal douche but as this produced hemorrhage he sought further advice.

On admission he looked dull and heavy and complained much of headache. From the quality of his voice and his inability to breathe through his nose something was evidently obstructing the nostrils. Examination by posterior rhinoscopy at once revealed a tumor in the naso-pharynx reaching just to the level of the palate; this could not be traced by the mirror to its attachment, nor by the finger either, but it gave the general impression that it had something of a pedicle. The appearance in the mirror was that of a brownish-pink growth of moderate firmness only, and this latter character was confirmed by digital examination which gave rise to some hemorrhage. As the growth was evidently limited it was decided to remove it by division of the palate to such extent as seemed necessary. On May 27th, therefore, chloroform was administered, a suture passed through each side of the soft palate close to the uvula, and the palate then being put on the stretch by these sutures, it was divided down the middle. As the

*Written expressly for the TRI-STATE MEDICAL JOURNAL.

finger could not easily reach the base of the pedicle, the hard palate was split for nearly an inch, the muco-periosteum reflected, and the posterior part of the hard palate, with the portion of septum attached, was chiseled away. The base of the tumor attached to the roof of the nose to the left and on a level with the margin of the septum, was firmly grasped with strong forceps and torn away, a raspatory being subsequently used until the site of attachment was denuded of soft tissue; the hemorrhage was very moderate. The divided palate was now sutured and an uneventful recovery followed with complete union of the palate. The patient remains well up to the present time. The pathologist of the hospital, Dr. Douglas Stanley, reported that the growth was a myxo-sarcoma.

Many operations for the removal of tumors growing from the base of the skull into the nose and pharynx are amongst the most formidable in surgery. One of the most important points for consideration is the method by which access is to be obtained to the base of the growth without damaging its distal parts, for it is to injury of the distal parts that much of the fatality is due. If the tumor is attached at its base only and speedily detached the bleeding is moderate, but if unfortunately the surface portions of the growth are invaded, the hemorrhage is very free and may be furious, threatening death both from its amount and from getting into the air passages. This access may be obtained by a temporary or by a complete resection of the superior maxillary bone, or as in one of my own cases by resection of the malar bone as well as the maxillary. Unfortunately in either of these ways, injury is apt to be inflicted on the distal parts of the growth by saw or chisel, whichever may be used in the resection. It is of the utmost importance then that every effort should be made to avoid such injury and the consequent hemorrhage. Another point to be borne in mind is that the position of the patient's head has no small influence on the amount of bleeding; if the head is dependent over the end of the table instead of being raised on a pillow free bleeding is promoted. Turning now to the case above related, one thing was made clear. It was that the method by splitting of the palate is only suitable for cases of very limited growth. The amount of room gained is quite inadequate for the removal of the more formidable variety of these tumors. From the point of view of recovery without any drawback or deformity this operation leaves nothing to be desired.

The Iowa State Medical Society recently met in Des Moines and elected the following: President, Dr. J. C. Shrader, of Iowa City; First Vice-President, Dr. E. Hornibrook, of Cherokee; Second Vice-President, Dr. E. L. Baker, of Indianola; Secretary, Dr. J. W. Cokenower, of Des Moines; Treasurer, Dr. G. R. Skinner, of Cedar Rapids. The next meeting of the Society will take place at Marshalltown on the third Wednesday in April, 1897.

A DIFFERENT VIEW FROM PHYSIOLOGICAL AUTHORITY AS TO HOW WE SEE.*

By DR. A. WETMORE, of Waterloo, Ill.

THAT images are formed on the vitreous body can be seen by any one who cuts the sclerotic of a calf's eye down to the vitreous humor in such a position that rays of light can pass through cornea, pupil and lens, from any body in their range. A favorite plan with me is to hold a calf's eye in my two hands, my eyes looking through an opening in the sclerotic that I have made, another person in front, guided by his eyes, moving his hand backward, forward, or side to side, in front of cornea opposite pupil of calf's eye. The shadow of the hand is readily identified, and in harmony with our present knowledge of optics is upside down. By minute anatomical examination of the retina the coat of the retina next the vitreous humor is made up of rods, cones and granular matter, transparent and, from its construction, "highly refractive," therefore this upside-down picture on vitreous body is, by the retina, made *erect*, and the fibers of the optic nerve carry an *erect picture* to the *brain!*

The position of an object with regard to other objects—right or left—is determined by viewing said object with both eyes. Shown by an upright in front of it, smaller in diameter than the object and several feet in front of it and in the same line; close first one eye and look at the object, then the other eye, following the same plan; finally look at it with both eyes, when it will be seen that its position has apparently changed at each observation, but looking at it with both eyes gives its correct locality with regard to other objects, which can be proven by measurements. An analysis of this condition indicates that each eye makes all of a picture in the vitreous body that is in its range of vision; that these pictures are upside-down in the vitreous body, conforming to optical laws, and shown as indicated, the retinas doing the final bending of the rays of light, receiving them and causing the impression of an erect image to pass along the fibers of the optic nerves to the brain, their extent of surface giving them power to take cognizance of all rays of light within their scope, merging no two pictures here! All of the rays of light form pictures on vitreous body passing to rods and cones in this layer of retina—the methods of termination of optic fibers of optic nerves; and such is the refractive power here met with by these rays of light, that the pictures, from being upside down in the vitreous body, now become right side up, and so carries these impressions through chiasm. Two eyes cause interrupted rays not to affect the picture, since if the diameter of intervening the object is not too great we can see on either side of the intervening object by looking at it with both

* Read before the Southern Illinois Medical Association.

eyes. The optical effect of light ceases when through the medium of the "rods" and "cones," an "erect *impression*" is sent to the brain, carried by the optic fibers the ends of these fibers (receiving the impression) taking the place of a screen, causing in the brain whatever sensation that character of light may produce. The chiasmatic commingling of optic fibers *harmonizes impressions* conveyed, and the two *optic tracts* take *cognizance* of it; hence *fibers* and *tracts* are *conveyers* and *receivers* of impressions made on this increased surface by light, and the *brain*-grouping. This evidence reaches *sensation*. Optics can furnish no explanation of two pictures merged into one by retina, chiasm, or optic tracts—which physiology hints at—since such is not the case, but in binocular vision, disease of brain, or other causes that have operated on the optical or sensational parts, professional skill and mechanical ingenuity may correct. Once more I claim—contrary to accepted authority—that the picture is first focused on the vitreous body, upside down in accordance with what we know of optics. Second, that on account of the great refractive power on light of the "rods and cones" in the inner coat of retina, the impression of an erect figure is made by light on the fibers of the optic nerves. Third, that two or more images made on retina are not merged into one *there*, but optically use more of this surface for causing the impressions that light makes, giving—this increase of surface—the relation of the object to other things, letting the *brain* alone deal with the sensation.

Illinois State Medical Society.—At the forty-sixth annual meeting of the Illinois State Medical Society held at Ottawa, May 19, 20 and 21, the following officers were elected: President, A. C. Corrf, Carlinville; First Vice-President, J. M. G. Carter, Waukegan; Second Vice-President, T. J. Pitner, Jacksonville; Permanent Secretary, John B. Hamilton, Chicago; Treasurer, Geo. N. Kreider, Springfield. The next meeting will be held at East St. Louis, third Tuesday in May, 1897, in conjunction with the Missouri State Medical Association.

The American Climatological Association will meet in Washington in 1897. The following officers were elected at its meeting held in Lakewood, N. J., May 12, 1896: President, Dr. E. Fletcher Ingals, of Chicago; Vice-Presidents, Dr. S. A. Fisk, of Denver, and Dr. John C. Munro, of Boston; Secretary and Treasurer, Dr. Guy Hinsdale, of Philadelphia. Council: Dr. W. E. Ford, Utica; Dr. Roland G. Curtain, Philadelphia; Dr. J. H. Platt, Lakewood; Dr. S. E. Solly, Colorado Springs; Dr. James B. Walker, Philadelphia.

Medical and Chirurgical Faculty of Maryland elected the following officers: President, Dr. William Osler; Vice-Presidents, Drs. Wilmer Brinton and Randolph Winslow; Recording Secretary, Dr. Jno. S. Fulton; Corresponding Secretary, Dr. W. Guy Townsend; Reporting Secretary, H. O. Reik; Assistant Secretary, Robert T. Wilson; Treasurer, Dr. W. F. A. Kemp.

FORMULAE.

Pneumonia in Infants.—In the obstetric clinic the following is often given in cases of pneumonia in infants:

Ammonium Corbonate	½ grain.
Fluid Extract of Eucalyptus	2 minims.

In a suitable vehicle.

The main feature of the treatment, however, consists in the faithful use of cold applications to the back and chest, every four hours. At the same time with the cold packs small doses of strychnin and alcohol may be given. Beef broth and milk make up the diet.—*Philadelphia Polyclinic.*

In Sexual Neurasthenia.—The following combination answers a good purpose:

℞	Quinine bisulph	ʒj.
	Ferri subcarb	ʒj.
	Strychnia sulph	gr. ss.
	Ext. damiana	ʒj.
	Ext. cinchon. sol	ʒij.

M. Make capsules no. xx.
Sig. : One capsule after each meal.

—Dr. Bedford Brown, of Alexandria, Va., in the *Virginia Medical Semi-Monthly.*

Bleeding After Excision of Tonsils.—In cases of severe hemorrhage after tonsillotomy Mr. T. Mark Hovell recommends the following procedure:

Mix together

Tannic Acid	3 parts
Gallic Acid	1 part.

And add a few drops of water.

Then kneed the powder until it is a *hard* mass, and from it take a piece sufficient to form a ball the size of a small marble.

Place this on the forefinger of the hand corresponding to the side of the patient from which the hemorrhage is taking place, and by this means introduce it into the patient's mouth and rub it firmly against the bleeding surface, making counter-pressure with the palm of the other hand placed on the side of the head over the region of the tonsil.—*The Practitioner, (London).*

Rhinitis.—For atrophic rhinitis and for chronic rhinitis with mucopurulent secretion, Dr. Vansant recommended the following as a cleansing wash:

℞	Sodium carbonate	1 oz.
	Sodium borate	1 oz.
	Sodium chloride	1 oz.
	Camphor	60 to 90 grs.
	Carbolic acid	60 to 90 grs.

M.

Add one-half teaspoonful to a cup of warm water, and use through the nose according to directions.—*Philadelphia Polyclinic.*

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HUTCHINSON, WOODS, Iowa City, DERMATOLOGY.
KELLY, WEBB J., Galion, Ohio, RAILWAY SURGERY.
LAFORCE, W. B., Ottumwa, Iowa, PATHOLOGY.
MINGES, GEORGE, Dubuque, BACTERIOLOGY.
MINK, ARTHUR E., NEUROLOGY.
PAQUIN, PAUL, THORACIC DISEASES.
ROBINSON, F. BYRON, Chicago, GYNECOLOGY.
STRAUS, LEON, PROCTOLOGY.
THOMPSON, G. H., THERAPEUTICS.
WELLS, HARRY, SPANISH-AMERICAN MEDICINE; GENITO-URINARY.
WILDER, WM. H., Chicago, OPHTHALMOLOGY.

AGAINST ADVERTISING.

The Austin Flint Medical Society, at a recent meeting held at Hampton, Iowa, passed strong resolutions against advertising. It demanded that editors of lay papers in that district refrain from publishing notices of surgical operations, or other news matter containing the names of physicians. We are acquainted with many of the members of the Austin Flint Society, and can assure our readers that no abler body of medical men can be found in the West. THE TRI-STATE MEDICAL JOURNAL congratulates these gentlemen upon their honorable action.

THE CYCLONE AS AN OBSTETRICIAN.

We learn in listening to the experience of those who passed through the dangers of the recent tornado that the truth is indeed more strange than fiction. In the region of Park and Jefferson avenues lived a young couple, who were happy in the hope of approaching posterity. The lady was at home alone when the terrible storm occurred. The side of the house was blown off, and she was carried by the storm across the street and landed on the opposite sidewalk somewhat down the street. She lost consciousness at the time the house was struck. When she came to herself in her new location the first sound that greeted her ears was the cry of a newly born baby, under her skirts. She gathered it up and called for help, which was not

long in coming. She was picked up, transported to a place of safety, and a physician summoned. Her husband, returning home as speedily as possible after the storm, was horrified to find his home an unrecognizable mass of brick and mortar and his wife not to be found. He searched in a distracted manner until morning, when a policeman was able to inform him of the place where his wife had been taken. He found the good woman "pretty considerable shuck up like," but still in the ring. At last reports both wife and baby were doing "well as could be expected." The names of the parties are withheld, because it would bring them into unnecessary notoriety. The almost miraculous escapes which were made by some of our good friends in the southern part of our city on that wild night would hardly be believed if recorded. Certain it is, that though the fatalities were many, escape, though as by the skin of the teeth was the rule, rather than the exception. R. C. B.

ARCHIVES OF CLINICAL SKIAGRAPHY.

Nothing is more demonstrative of the rapid progress of the age than the facility with which scientific men present their discoveries to the profession. The *Archives of Clinical Skiagraphy* is a London publication issued by the well-known house, the Rebman Publishing Company, Ltd., 11 Adam street, Strand, and is edited by Sydney Rowland, B. A., Camb., an authority on the subject. The object of the *Archives* "is to put on record in permanent form some of the most striking applications of the new photography to the needs of medicine and surgery." We have before us Vol. I, Part 1, consisting of six plates and sixteen pages of descriptive text. Price per issue, 4s. 4½d. We would advise all our readers who wish to be *au fait* with the new photography to subscribe for the *Archives of Clinical Skiagraphy*.

THE SEDALIA MEETING.

From every point of view, scientifically, socially, and fraternally, the Sedalia meeting of the Missouri State Medical Association was a success. The Sedalia people are noted for their enterprise and hospitality. The doctors of that thriving city did all that was expected of them and made the visiting brethren welcome.

The papers as a rule were of great value. It is unfortunate that the rules of the Association were not strictly observed, and debate limited, since many gentlemen did not get the opportunity to read their papers. The program was entirely too long and the first evening was wasted in a sort of funereal fashion. We understand that the services intended to do honor to the old members of the Association were calculated to make the old-timers wish they had been dead for many moons. Instead of filling the

old men with joy and happiness many of the speeches were deadening in their effect. Old age needs no apologies.

The Society elected Dr. John H. Duncan to the Presidency. There was no opportunity for a mistake, since the only candidates were Doctors Duncan and Shaw—both good men.

The Kansas City delegation was present in full force and, as usual, carried off her share of the honors. The address on surgery by Dr. Jabez N. Jackson was a splendid effort and was received with applause. The paper of Dr. Gayle was a thoroughly good one. Before adjourning the Association passed the following resolutions:

"*Resolved by the Medical Association of Missouri*, That as the bill now pending in Congress entitled, 'A Bill for the Further Prevention of Cruelty to Animals' will, if enacted into a law, prohibit vivisection and

The Building which Sedalia Proposes to Donate to the State of Missouri for a Capitol.

experimental work of greatest import to humanity and to the preservation of valuable domestic animals, this Association most heartily opposes its passage.

"*Resolved*, That the Senators and Representatives in Congress of the State of Missouri be and are hereby requested to use every legitimate means to defeat the passage of the bill.

"*Resolved*, That the Medical Association of Missouri indorses most heartily the efforts of the State Board of Health in its advancement of the standard of higher medical education, and that now and in the future we pledge it our most careful support."

Next year the Association will meet in Saint Louis, and a joint session with the Illinois Association (meeting at East Saint Louis) will be held on a Mississippi steamboat.

DON'T STEAL YOUR NEWS.

This is the advice we would give to the *American Medico-Surgical Bulletin*. We note that the issue of June 6th contains an item of news which has been stolen bodily from the TRI-STATE. We are accustomed to this sort of thing out West, but did not think an Eastern journal would be guilty of such a break.

THE SAINT LOUIS TORNADO.

On May 27th this city was visited by a tornado which left death and destruction in its wake. One hundred lives were lost in Saint Louis, as many more in East Saint Louis, and hundreds were severely injured. The destruction of property will foot up ten million dollars. The only good feature about the calamity is the complete razing of the old City Hospital.

As always occurs in times of great responsibility, whether on the battle-field, in collisions, or in great epidemics, the members of the medical profession rose to the responsibilities of the hour and acted the part of heroes. Doctor Starkloff, with his injured arm in a sling, was prompt and energetic as becomes the model Health Commissioner. With his house in ruins, he forgot his own interests in his solicitude for the wounded poor. Doctor Sutter, Superintendent of the City Hospital, and his assistants, worked all of the fateful night and the entire following day. At St. Mary's Infirmary Doctor McCandless did noble work. At the Missouri Pacific Hospital Doctor Outten and assistants ministered to the wants of scores of victims. At the Alexian Brothers' Hospital Doctor Lutz held one of the longest clinics ever conducted in this country. Doctor Brokaw was early upon the scene of the City Hospital wreck and did efficient work. Dozens of other physicians attended to the maimed and injured. The citizens of Saint Louis will not forget these men.

A distressing feature of the great storm was the destruction of the residences of many physicians. The destruction caused by a tornado is awful in its completeness. Scarcely an article of value remains where stood splendid mansions furnished with a lavish hand.

WHAT JENNER CLAIMED FOR VACCINATION.

Nearly everything that Jenner said or wrote was misrepresented during his lifetime and misstated since his death. It is very much to the credit of the great discoverer that he did not weaken his case by overestimating the efficacy of vaccination. He wrote regarding vaccination "Duly and efficiently performed, it will protect the constitution from subsequent attacks of small-pox as much as that disease itself will. I never expected that it would do more, and it will not, I believe, do less." Shortly before his demise he wrote as follows: "My opinion of vaccina

tion is precisely as it was when I first promulgated the discovery. It is not in the least strengthened by any event that has happened, for it could gain no strength; it is not in the least weakened, for if the failures you speak of had not happened, the truth of my assertions respecting those coincidences which occasioned them would not have been made out."

DOCTOR MEISENBACH'S VIEWS.

Doctor A. H. Meisenbach, Professor of Surgery in the Marion-Sims College of Medicine, has given considerable thought to the subject of hospital construction, and particularly with reference to the needs of Saint Louis. After reciting the advantages of the pavilion plan, he states the following conclusions:

"1. An Emergency Hospital should be established on the site of the old City Hospital.

2. The new City Hospital should be located on the outskirts of the city at the Poorhouse or elsewhere.

3. The hospital should be built on the pavilion plan, especial attention being paid to scientific requirements and less to architectural ornamentation.

4. Especial attention should be given in its construction to enhance the facilities for medical teaching.

5. The erection of a pathological and bacteriological laboratory should be one of the features of the new hospital.

6. The appointment of a city pathologist is one of the necessities of an institution of this character, and it should be provided for."

In our next issue, we hope to present the views of other surgeons on this important question.

THE SAINT LOUIS ACADEMY.

It gives us pleasure to announce that the Saint Louis Academy of Medical and Surgical Sciences is steadily growing in membership, power and usefulness. Its time is not occupied in the discussion of personal grievances but in the reading and consideration of scientific papers, cases, specimens and reports. In this society every one is of equal importance and possessed of equal rights. The careful selection of the material of which members are made is of advantage in maintaining harmony and self-respect. We predict a glorious future for the Academy.

HISTORICAL SKETCH.

EDWARD JENNER, THE DISCOVERER OF VACCINATION. 1749=1823.

By James Moores Ball, M. D.

ONE hundred years having passed since Edward Jenner introduced vaccination, it would seem appropriate that we should pause in the midst of our busy labors to consider the life and character of him who was and is the greatest benefactor of our race, that we should do honor to his memory, and add our feeble tribute to his worth.

Edward Jenner was the son of a Reverend Stephen Jenner, Vicar of Berkeley, in Gloucestershire, England. Born in 1749, his early life was

Edward Jenner.
From a Portrait by Vigneron.

uneventful; his professional education began at the age of 13 under the direction of Mr. Ludlow, of Sodbury, whence he entered St. George's Hospital in 1770. In his twenty-first year he became a pupil of the celebrated John Hunter. Between these two a friendship sprang up which was terminated only by Hunter's death. In 1771 Jenner was offered the post of naturalist to Captain Cook's expedition which sailed the following year. Fortunately Jenner declined the position, preferring to return to his native town, there to begin the laborious life of a country physician. His surgical skill, polished manners and great general information secured to him a welcome reception from the most distinguished families in that district, while his tender consideration for the poor endeared him to that class

who are always with us. It was from a young woman, a dairy maid, that Jenner obtained an inkling of that great discovery which has rendered his name immortal. It was when he was a pupil at Sodbury that a young woman, coming there for advice, said, in speaking of small-pox: "I cannot take that disease for I have had cow-pox." A few months later Jenner mentioned the matter to Hunter and received this characteristic advice: "Do not think, but try; be patient, be accurate." And when Jenner returned to his native heath he resolved to try. Finding that the idea of the young girl was common belief around Berkeley, Jenner, on May 14th, 1796, made his first inoculation with cow-pox, the subject being an eight-year-old boy named Phipps. The virus was taken from the arm of Sarah Nelmes, a dairymaid who became infected by her master's cows. On July 1st the patient was inoculated with small-pox virus without result. In describing the experiment to his friend Gardner, Jenner writes: "Having never seen the disease but in its casual way before—that is, when communicated from the cow to the hand of the milker—I was astonished at the close resemblance of the pustules in some of their stages to the variolous pustules. But now listen to the most delightful part of my story: The boy has since been inoculated for the small-pox, which, as I ventured to predict, produced no effect. I shall now pursue my experiments with redoubled ardor." This was in 1796. As early as 1780 Jenner entrusted to Gardner his dominating idea; in 1788 the question was brought under the notice of the London profession, but seems to have impressed only one member—Henry Cline. Between 1788 and 1796 Jenner was busy conducting experiments. Then for two years experimentation was abandoned because cow-pox had disappeared from that district. It was in 1788 that Jenner published "*An Inquiry into the Causes and Effects of the Variolæ Vaccinæ, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the name of the Cow-Pox pp. iv., 75, 4 plates, 4to. London, 1798.*"

As might have been anticipated, a horde of critics sprang up. Caricaturists pictured Jenner riding upon a cow. Cases were published in which vaccinated persons became covered with hair and grew horns and tails. It was said that vaccination changed the disposition of one child to such an extent that he ran on all fours, bellowing like a bull. Of all Jenner's detractors, Doctor Moseley, physician to Chelsea Hospital, seems to have been the bitterest. The quarrels of doctors of that time were often carried on in verse. Hence it is not surprising to find the following lines:

"Oh, Moseley! thy book nightly phantasies rousing,
Full oft makes me quake for my heart's dearest treasure;
For fancy, in dreams, oft presents them all browsing
On commons, just like little Nebuchadnezzar.
There, nibbling at thistle, stand Jim, Joe, and Mary,
On their foreheads, O horrible! crumpled horns bud;
There Tom with his tail, and poor William all hairy,
Reclined in a corner, are chewing the cud."

While the profession for many years looked upon Jenner as a "crank," and learned men were slow to adopt vaccination, the laity in the main believed in him and besieged his home. As many as three hundred persons were vaccinated by him on a single day; it was no unusual event for the church wardens to urge the people to be vaccinated, owing to the great cost to the parish of the increased number of coffins due to deaths from small-

pox! Jenner attended the poor gratuitously and in his garden a special vaccination building was erected, called the Temple of Vaccina. Jenner conducted an enormous correspondence, sent lymph to all parts of the earth, and nearly wrecked his fortune by his charity. Often his postage, domestic and foreign, would exceed £1 a day. He dubbed himself "Vaccine Clerk to the World." In marked contrast to the action of the American Congress in refusing to pension the discoverer of ether anæsthesia, the English Parliament granted Jenner £10,000 in 1802 and £20,000 in 1807; and in this connection two facts are worthy of note: (1) Many members voted in the negative in each instance because they believed the sums too small; and (2) even those who doubted the efficacy of vaccination had only words of praise for Jenner's honesty and integrity. Even Jenner's detractor, the celebrated Doctor Moseley, writes: "It will not be credited by future generations that both these large sums were granted by Parliament without even the symptoms of a controversial discussion. Party tongues were dumb, and the spirits of contention, which on subjects of much less importance to the human race have so often shaken the empire, were here absorbed in sympathetic composure and unity." Parliament looked at the Jenner grants in a business-like way. When the first bill was under consideration, Admiral Berkeley, chairman of the committee, stated that there was plain evidence that Jenner had been the means of saving 40,000 lives annually in the United Kingdom alone; and taking each life as worth only 10s., there was due to Jenner £20,000 annually.

Medical Society of New Jersey.—The annual meeting of the Medical Society of New Jersey will be held in Asbury Park, June 23 and 24, 1896. The annual address will be delivered by the President, William Elmer, Jr., M. D., on "The relation of the Physician to Sanitary Science," and the following papers will be read.

"Demonstration of Bassini's Operation," by S. E. Milliken, M.D., New York.—"Clinical Observation." Referring to Auto-intoxication of Gastro-intestinal Origin. Philip Marvel, M.D., New York.—"Fibroid Tumors of the Uterus; Obstructing Labor; Subsequent Disappearance of Tumors; Remarks on Uterine Fibroids as a Complication of Pregnancy." Dr. George H. Balleray.—Discussion upon subject presented at last annual meeting, "Is the Therapy of Antitoxin Serum, Nuclein Solution, and Thyroid Extracts so fully established as to receive the Indorsement of the Profession?" Dr. Alex. McAlister was appointed to take the leading part in the discussion.—"Antisepsis and Antiseptics from the Standpoint of the General Practitioner." Third Vice-President, Dr. C. R. P. Fisher.—"Cloroform Narcosis." Dr. Floy McEwan, Newark.

Dr. William Pierson, of Orange, N. J., is Secretary of the society.—*Am. M. S. Bulletin.*

Second Pan-American Medical Congress.—The second congress will take place in the City of Mexico, November 16, 17, 18, and 19, 1896. Dr. Manuel Carmona y Valle has been elected President by the Committee on Organization, Dr. Rafael Lavista has been elected Vice-President, and Dr. Eduardo Liceaga, Secretary. Those who desire to attend should send their names and addresses to Dr. C. A. L. Reed, St. Leger Place, Cincinnati, O.

DEPARTMENT OF RHINOLOGY.

By J. Homer Coulter, M. D., Ph. D., of Chicago.

DR. Mc MILLAN at a recent meeting of the London Laryngological Society introduced a subject of vital importance. In discussing the pathological conditions affecting the vocal cords of school teachers, the writer said—as etiological factors the most important are— the long hours, the large rooms, and the number of pupils, necessitating a raising of the voice considerably beyond the normal pitch, and keeping it there, thus superinducing hyperæmia. The schools are frequently on a noisy street, entailing unusual vocal exertion; frequently poor ventilation and constant mental strain are factors in these conditions.

In the recent diphtheria epidemic in Chicago the most vigilant care was constantly exercised, both in reference to the certainty of diagnosis, and the method of treatment. Of 805 cases reported to the Health Department, all of which were verified by culture tests, 52 died. Considering the fact that only a very small proportion of these were hospital cases, it is certainly encouraging. In connection with these, and exposed to a greater or less degree, were 810 cases in which the protective injection of antitoxin was given; only 4 of these so treated subsequently contracted the disease. Dr. B. R. Shurley, of Detroit, reports 26 cases, verified by culture, with 2 deaths. It is to such reports that some credence and importance can be attached—and some deductions of value made; because we know we are not dealing with cases of membranous pharyngitis or tonsillitis.

Arslau, of Bremen, has collected from literature 106 cases of tumor of the tonsil, to which he has added 4 of his own cases. I can add one to this number—a case recently referred to me by Dr. Galbraith—a woman, 58 years old, complained of constant desire to swallow, and slight sore throat, but no pain. Examination revealed a nodular mass, firm in consistency, and slightly pedunculated, attached to upper third of the posterior border of left tonsil. It was easily removed, and under the microscope proved to be papillomatous, though much more solid than we ordinarily expect in such a pathology.

Dr. R. H. Babcock in a recent paper on cough makes, among others, the following very pertinent remarks: "Cough may often be found depending upon some condition remote from primary disease of the respiratory tract. The reflex sensibility of the air-passages is not the same throughout. Chronic congestion and mechanical irritation, as from mucus, if situated in the pharynx or about the epiglottis, will often occasion fre-

quent and violent paroxysms of cough, deceiving both patient and practitioner into the belief in a most serious pulmonary affection.

"A rather extended experience with the symptomatology of thoracic disease has taught me that cough bears no definite relation to the gravity of the primary affection.

"The cough of consumptives is so variable in respect to frequency, severity, and extent of lung involved, that when particularly distressing and intractable, it suggests the probability of laryngeal complication or irritation of the bronchial mucosa from tubercular ulceration or the passage over it of septic sputa. In some instances the frequency of the cough is largely a matter of habit; that is, the patient yields to his desire to cough upon slight provocation without any attempt to check it.

"Although the first principle of correct treatment is the removal of the cause where possible, there are cases in which this can not be done, notably in heart disease and pulmonary tuberculosis. In such, if the cough be allowed to go on unchecked, it may not only exhaust the patient but often aggravate the existing malady. Under such circumstances it is advisable to administer a sedative, and nothing has yielded such satisfactory results in my hands as phosphate of codeine in half-grain or grain doses by the mouth.

"Codeine is preferable to morphine or crude opium, because it rarely disturbs appetite or digestion and is generally free from their unpleasant after-effects. The phosphate of codeine is preferable to the sulphate, because containing a larger percentage of the base, besides being readily soluble and suitable for hypodermic administration."

A Great Catalogue —Some idea will be gained of the vastness of a great pharmaceutical laboratory when we inform our readers that the price list for 1896, which we have just received from Parke, Davis & Co., embraces some twenty-nine distinct and complete lines of preparations, comprising over six thousand articles. The business of this great house having increased almost by leaps and bounds, they have recently opened two new branches—one in New Orleans and another in Baltimore.

The list before us is a compendium of useful information, general, medical, pharmaceutical, and botanical; it is handsomely printed, and is conveniently arranged for reference. Every practitioner should write for one.

All who are familiar with the dignified, scientific methods of this firm, its uniform courtesy to seekers after information, the scrupulous purity of its preparations, and its magnificent laboratory in which an unsurpassed discipline prevails, will not waste any wonder over a success which has become well-nigh proverbial among physicians and pharmacists.

A Clean Hospital.—We take pleasure in calling the attention of our readers to the excellence of the Alexian Brothers' Hospital of St. Louis. It is a model institution.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In Photo-Lithochromes from Models in the Museum of the St. Louis Hospital, Paris. With Explanatory Wood cuts and Text. By ERNEST BESNIER, Physician to the St. Louis Hospital, Member of the Academy of Medicine, President of the Dermatological Society of France; A. FOURNIER, Physician to the St. Louis Hospital, Professor of the Faculty of Medicine, Member of the Academy of Medicine; TENNESON, Physician to the St. Louis Hospital; HALLOPEAU, Physician to the St. Louis Hospital, Member of Academy of Medicine, Professor agrégé of the Faculty of Medicine; DU CASTEL, Physician to the St. Louis Hospital, with the Co-operation of HENRI FEULARD, Curator of the Museum, Formerly Chef de Clinique of the Faculty at the St. Louis Hospital. Secretary: L. JACQUET, Formerly House Physician to the St. Louis Hospital, Secretary of the Dermatological Society of France. Edited and Annotated by J. J. PRINGLE, M.B., F.R.C.P., Assistant Physician to, and Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Royal Quarto. Part III. pp. 55-82, with Four Plates and Figures in the Text. London: The Rebman Publishing Co., Ltd. Philadelphia: W. B. Saunders, Publisher, 925 Walnut St., 1896. To be published in 12 parts. Price, $3.00 a part. Sold by Subscription.

The Musée Baretta of the St. Louis Hospital, at Paris, has for many years been known as the Mecca of dermatologists and as the most instructive and valuable collection in the world. The faithfulness of delineation and accuracy of reproduction there exemplified have not only never been surpassed but not even equalled up to the present day. It is easy to understand that with the wealth of clinical material furnished by the hospital and the high order of knowledge observing it, such an indefatigable worker as Baretta is should have produced a collection such as it stands to-day. In direct line with this work is the Atlas of which Part III. is before us. We have had occasion to examine all the Atlases of Skin Diseases and of Syphilis which have appeared up to the present and we do not hesitate to state that this one is the *facile princeps* of all without exception. The plates are exact reproductions of the *moulages* and these latter are so true to nature that one expects to feel the warmth of life in them. The faithfulness to detail and perfect accuracy are little short of the marvelous. The essential part of plates illustrating dermic affections is exact coloring and, in this respect, those before us are above criticism.

To take them up in greater detail: Plate 9, illustrative of various types of syphilis of the tongue, illustrates the principal types of ulceration of the tongue which occur in tertiary syphilis. The two figures illustrative of gummous glossitis are most excellent and exceedingly valuable in view

of the fact that this is the form most frequently mistaken for epithelioma of the tongue and but too frequently operated upon for extirpation when such is unnecessary. In Plate 10 we have a most excellent representation of the circinate variety of dermatitis herpetiformis which seems, as yet, to be enshrouded in more or less obscurity so far as a definite description is concerned. The delineation furnished is on the chest and mamma of an old man and typical in appearance such as we have had occasion to observe in a couple of instances. Yet the history is such as to leave some doubt as to its being a genuine case of Duhring's disease, although M. Vidal, who saw it, pronounced it such. Plate 11, illustrative of superficial syphilitic gummata, accompanied by ulceration, is typical. The coloration of the skin around the lesions is most striking and it is all so characteristic that one who has ever seen such cases could make a diagnosis directly he saw the plate. The converse is equally true. Any one who studies this plate will be enabled to recognize the trouble even if, as in the case delineated, syphilis had been unknown and unrecognized before. In plate 12 we are presented with a most striking picture of disseminated epithelioma of the face of sebaceous origin. In the profile figure a large epithelioma of the side of the nose is shown and it is the best representation we have ever seen of this variety of malignant process. In the other figure, giving a three quarters view of the face of the same patient, the smaller epitheliomata and sebaceous crusts, are also most magnificently delineated.

Such is a brief synopsis of the plates. The text is what might be expected from such masters of dermatology as the list of collaborators presents to us. The clinical histories and descriptions are full and clear and the critical observations are the result of years of study and experience. The text is full of suggestions and has been written for the instruction of the general practitioner with a view of simplifying for him what has always been looked upon as a mystery. The English editor, Dr. J. J. Pringle has done much valuable work in the way of additions and suggestions and his collaboration has done much in the way of enhancing the value of the work.

One point of more than ordinary value to which we desire to direct attention is the fact that the wood-engravings introduced in the text by way of aids in pointing out the details in plates are themselves well-finished illustrations. This is a feature which Atlases have lacked heretofore, and many readers, not expert, have failed to appreciate an author's meaning or understand his description through this very deficiency.

We hope to hear of a large sale for this meritorious Atlas. It is very cheap, comparatively, and deserves the full support of the entire profession.

OHMANN-DUMESNIL.

Therapeutics of Infancy and Childhood by A. JACOBI, M. D. J. B. Lippincott & Co., publishers.

This work comprising over five hundred pages, is of a very practical character.

Dr. Jacobi has drawn largely upon his ripe experience and systematic observation, and as a result, has given us a volume of real value.

In the first part of the book, there are several chapters devoted to the feeding of sick children, and the rules laid down in these, are worthy of the closest study.

In his treatment of the self-limited diseases, the author objects to the rule so often adopted by physicians of doing nothing. He considers it the duty of the physician to forestall complications, and aid the natural means of cure in every way. On the whole, the work may be considered a valuable addition to our literature.

A Text-Book Upon the Pathogenic Bacteria for Students of Medicine and Physicians. By JOSEPH MCFARLAND, M. D., Demonstrator of Pathological Histology and Lecturer on Bacteriology in the Medical Department of the University of Pennsylvania, etc., etc. Philadelphia: W. B. Saunders, 1896.

In writing the preface to this book the author expresses the belief that it will find its sphere of greatest usefulness in the hands of medical students and those practitioners who graduated before bacteriology had come to be so valuable in the study of the etiology of disease. We concur in this opinion and believe that it will render good service both as a book of reference and as a practicum. As a reference book the value of the matter it contains is increased by being thoroughly indexed. Although it gives no new details, it is a good practicum because it presents the technique of the leading bacteriologists of the world, whom the author gives due credit for all that he has drawn from their writings.

In general the book is written concisely, but some of the definitions which do not properly come under the head of bacteriological explanation are badly chosen. Without going into detail too much, we will mention the introductory paragraph of the article on pneumonia, which conveys the meaning of the author quite poorly, and is hardly correct in stating that "pneumonia must be considered as a group of diseases." Whatever is the cause of pneumonia in any given case, it is an inflammation of the lung tissue, and whether it is caused by the diplococcus pneumoniæ, the bacillus sali communis, or by a mixed infection of other bacteria, which is quite often the case, the fact always remains that it is the lung that is involved and not "a group of diseases."

The chapter on tuberculosis is, as one might expect from the importance of this disease, an exceptionally good and well written one. The author very properly gives some pertinent suggestions about the care of tubercular patients in order to prevent the spread of the disease, and the book is valuable for this chapter if for nothing more; and, as tuberculosis receives so much attention, both professional and lay, this chapter is of especial interest.

The chapters on diphtheria and typhoid fever are also good, and will be of interest to all classes of practitioners. Most of the plates are very good, and though some of them would have been improved by being made more diagramatic, they are on the whole well chosen and reproduced.

The publishers have printed the book in good, clear type, which adds greatly to the pleasure of reading it.

In closing we congratulate the author upon having given to American students and practitioners a compilation of much value.

The Archives of Pediatrics, a monthly journal, edited by DR. FLOYD M. CRANDALL, and published by E. B. TREAT, has been considerably enlarged, and also improved in other respects.

It is a valuable publication.

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

ST. LOUIS, MO.

CHAPTER IX.

HEAT OR SUN-STROKE.

Question. In what manner is death brought about, when due to Heat Stroke?

Answer. 1. By Apnœa.—The victim, generally a subject of chronic alcoholism, is exposed for a considerable time to the direct rays of the sun; thermic fever sets in. The temperature of the body is extremely high; face flushed and swollen; breathing difficult; pulse rapid and bounding; falls unconscious.

2. By Syncope.—The victim of delicate and feeble constitution, working hard in over-heated and over-crowded factories, becomes exhausted and sinks in a fainting fit; the face is pallid, extremities cold, body temperature subnormal, pulse weak and fluttering; falls unconscious.

3. By Coma.—The victim, exposed to the direct rays of the sun during the day and prevented from sleeping comfortably at night on account of being worried by the cares of business or from some other cause, contracts meningitis or cerebritis; delirium, insanity, stupor and insensibility follow from pressure of effusion. Coma may result at once from apoplexy, the walls of the vessels giving way under the congestion which attends the thermic fever or paralysis more or less extensive be the outcome.

Question. What is the true key to the treatment of these cases when found still alive?

Answer. 1. In the first set of cases where death approaches by Apnœa, the external application of ice is indicated to arrest the thermic fever. This should be accompanied by phlebotomy, emetics, purgatives and general depletory measures.

2. In the second class of cases where death approaches by syncope stimulants of a diffusible character are indicated, fresh air, tonics and proper nourishment.

3. In the third class of cases where death approaches by brain disease, there is indicated ice to the head and such sedatives as tend to produce natural sleep.

Question. What facts in connection with death by Heat Stroke are of medico legal interest?

Answer. 1. Those who are gradually accustomed to live and work in a superheated atmosphere acquire a remarkable toleration for its effects.

2. When people accustomed to temperate climates attempt to live in the tropics, they should also assume the diet and habits of tropical natives. Meat and alcoholic drinks freely indulged in prove especially deleterious.

3. Aged people whose arteries have undergone natural calcareous degeneration are extremely liable to sudden death from exposure to great heat if unaccustomed to its influence.

4. The diagnosis is frequently difficult between acute alcoholism and Heat Stroke, in a person who has been drinking. Owing to this fact, the police frequently lock up in the hold-over as common drunkard

men who should properly be sent to the dispensary for treatment. They are often surprised to find such persons dead when entering the cell the next morning. Great care ought to be exercised in hot weather, that such mistakes be not made.

5. In some cases of Heat Stroke the body temperature reaches the great height of 110° or 113° F.

6. Rigor Mortis comes on very early in these cases, especially in the heart muscle, and does not last long and it is not infrequent that we find putrefaction begun in the heart and large blood vessels within eight hours after death.

7. A temperature of 7 to 9 degrees above the normal heat, if continued for any length of time, will prove fatal.

8. The extreme degree of external atmospheric heat which can be endured, for any time, has never been determined, but as high as 400° to 600° F. was endured by Chabert, the fire king, on experiment (Tidy's Legal Medicine).

9. The thermic fever seems to be due to some action of the heat on the sympathetic nervous system.

EXPOSURE TO COLD.

Question. What is the manner in which death is brought about, when due to exposure to cold?

Answer. By Syncope and Coma mixed.

Question. What facts are of medico-legal interest in connection with death from exposure to cold?

Answer. 1. The very young and the very old bear exposure to cold badly.

2. Young adults stand cold the best.

3. Chronic alcoholism predisposes to death by cold.

4. Exhaustion and starvation predispose to death from cold.

5. Dampness and moisture and immersion in cold water accelerate death from cold.

6. On Arctic expeditions men have endured atmospheric cold 100° below zero F.

7. Resuscitation may take place after extremities have been frozen if thawing be gradual, but local gangrene is a frequent result.

8. There is no reliable case on record where resuscitation has taken place after the complete freezing of the body in man. This has been frequently accomplished in the cold-blooded animals, such as fish and reptiles, if thawing be gradually brought about.

9. The effects of extreme heat and extreme cold are somewhat similar on the circulation of a part.

10. In sudden exposure to cold the capillary vessels become so contracted that the blood corpuscles are unable to enter them, the circulation is therefore stopped except in the larger vessels. The oxygenation of the blood becomes imperfect and the blood corpuscles soon disorganize and are not restored unless the condition of temperature is changed. In this cases, on post-mortem, the large vessels are discovered to be full of blood while the capillaries are empty.

11. After death the surface is generally pallid except for dusky red patches, ecchymotic in nature and of considerable size, which are frequently found scattered over the surface and which contrast forcibly with the general whiteness of the skin.

12. Infants newly born have been murdered by exposure to cold alone. When such a crime is committed the proof is difficult and must be established negatively, that is no other adequate cause of death existing.

13. Putrefaction does not take place while a body remains frozen,

so that if a body be discovered frozen in which putrefaction has somewhat advanced, one of two facts must be true, either the person died from some other cause than freezing or the body has been thawed after death sufficiently for putrefaction to begin and become subsequently frozen a second time.

ELECTRICITY.

Question. In what manner does death take place when due to electric shock?

Answer. By coma and syncope mixed.

Question. Under what circumstances do most of the electric shocks occur?

Answer. 1. Ordinary lightning stroke.

2. By accidentally handling charged wires in the occupation of electric lighting or working with electrical power machinery.

3. By judicial executions as in New York State.

Question. What facts are of medico-legal interest in connection with death from electric shock?

Answer. 1. Death, if it come at all from this cause, is instantaneous. Those not killed at once generally recover more or less completely.

2. Burns of greater or less severity may occur from the electric sparks and death eventually result from these.

3. A person working on a high pole or building, putting up wires, may be shocked sufficiently to cause him to lose his hold and fall to the ground, death resulting from the fall and not from the electric shock.

4. The symptoms of profound electric shock are similar to those of brain concussion. Insensibility, deep, slow, interrupted respiration, slow, soft pulse, muscular relaxation are prominent at first and catalepsy, tetany, convulsions, delirium, insanity or some form of paralysis as improvement comes on.

5. Rigor mortis is usually sudden in these cases, the victim remaining in the attitude in which the shock was received. In judicial executions the rigor was found present in four minutes after death.

6. In lightning stroke there are often ecchymosed streaks over the body, which seem to mark the course of the electric current.

7. Lacerated wounds of greater or less size may be produced.

8. Fractures of the skull have been found both depressed and bulging as though produced by an explosive force.

9. The clothing may be rent and torn, singed or entirely destroyed, and this without any injury to the body at all.

10. All steel instruments about the body are frequently found to be magnetized.

11. In judicial executions a pressure of 1,200 to 1,500 volts is used.

12. In these executions the flesh is usually found burned at the point of contact with the electrode.

13. The blood is found fluid, and purplish ecchymoses are scattered over the surface of the skin.

14. The anterior cells of the cornea were found desquamated from the central portion, as if by heat.

Question. What sequelæ are to be expected after partial recovery from a shock of electricity?

Answer. 1. Aphasia.

2. Insanity.

3. Epilepsy and Catelepsy.

4. Vertigo.

5. Paralysis, either sensory or motor, local or general, or of some of the special senses.

6. In some cases the menstruation has been restored after it had been

arrested for years by natural change of life.

STARVATION.

Question. In what manner does death come when induced by starvation?

Answer. By syncope from asthenia.

Question. In what classes may the cases of starvation be arranged for purposes of study?

Answer. 1. Acute starvation, where the person is suddenly deprived of both food and water.

2. Chronic starvation, where the person is put upon an insufficient allowance of food to sustain life.

3. Cases where the person is allowed plenty of water but no food.

4. Cases where improper or indigestible food is furnished, causing such diseases as chronic diarrhœa and scurvy.

5. Cases where insufficient food is combined with exposure to cold and wet weather, unprotected by proper clothing.

6. Cases complicated with obstructive diseases of the alimentary canal. Here cancer or syphilis may bring an additional deleterious influence to bear on the system.

7. Cases where on account of diseased conditions the food taken is not digested or assimilated, thus leading to atrophic changes.

Question. What are the symptoms of starvation?

Answer. 1. Sensation of hunger and thirst, continuous if starvation be chronic, but lasting only about forty-eight hours if starvation be acute, and often absent entirely, if the starvation is due to obstructive disease.

2. Gradually increasing weakness in all cases.

3. Sensation of coldness.

4. Progressive and rapid emaciation.

5. The skin is covered with a brownish exudation like varnish and exhales a very offensive odor.

6. There is great pain felt in the region of the stomach, more especially in the chronic cases and those due to disease.

7. Extreme mental weakness, ocular illusions, mild delirium or furious insanity in chronic cases, finally unconsciousness and death.

Question. What are the post-mortem appearances in death from starvation?

Answer. 1. Extreme emaciation.

2. The skin shrunken like parchment.

3. Entire absence of subcutaneous or muscular fat.

4. Entire absence of food in stomach and intestines. These organs are found collapsed and small, their coats thin.

5. The muscles and solid viscera shrunken.

6. Absence of other disease sufficient to account for death.

Question. What time is required to produce death by starvation?

Answer. 1. In acute starvation where the victim is entirely deprived of both food and water, about fourteen days.

2. When water alone is allowed, a person has been known to survive for forty-five days.

3. Where insufficient or improper food is allowed, or disease complicates the case, no opinion can be formed unless all the circumstances are known.

Question. What facts are of medico-legal interest concerning death by starvation?

Answer. 1. Death by starvation my be accidental, suicidal or homicidal.

2. Homicide in this manner is not infrequent, the victims being in-

fants, aged people, sick people, confined prisoners and lunatics.

3. Most of the suicidal cases occur among the insane.

4. Many cases of pretended fasting are observed among hysterical people, and these frauds may occasion legal inquiry.

5. When these cases are watched closely they have been known to starve to death rather than admit their imposture.

6. Cruel and neglectful treatment, associated with the deprivation of proper food, doubtless, forms one of the most criminal means employed by so-called baby farmers for bringing about the demise of infants submitted to their care. This is especially true in cases where a certain sum of money is paid at the time the child is placed in their charge and no further remittances forthcoming. When paid by the week, it is for the interest of such persons to have the children live as long as possible, and the children receive better treatment.

7. Proof in these cases is usually wanting, for the treatment generally induces natural disease which assists the deadly process materially, and which on post-mortem accounts for the death.

Question. What is the best means of treating a patient who has been subjected to a prolonged fast?

Answer. 1. First restore the body heat by means of a hot bath. This is important.

2. Administer concentrated liquid food in small quantity and at short intervals, gradually increasing the quantity and interval as strength improves.

3. Tonics and nutrient drugs should also be administered, together with pepsins to assist digestion.

Officers National Association of Railway Surgeons for 1897.—President, Dr. Frank J. Lutz, St. Louis; Secretary, Dr. Cassius D. Westcott, Chicago; Treasurer, Dr. E. R. Lewis, Kansas City, Mo.

The Committee on Nominations made the following report which was unanimously adopted.

Executive Committee—Dr. A. J. Bouffleur, Chicago: Dr. J. N. Jackson, Kansas City; Dr. James A. Duncan, Toledo; Dr. J. B. Murphy, Chicago; Dr. W. S. Thorne, Toledo; Dr. W. S. Davenport, Iowa; Dr. J. A. Barr, McKee's Rock, Pa.

Vice-Presidents—Dr. William R. Hamilton, Pittsburg, Pa.; Dr. E. D. Eddy, Utica, N. Y.; Dr. J. H. Lechter, Henderson Ky.; Dr. Albert C. Wedge, Albert Lea, Minn.; Dr. Rhett Goode, Macon, Ga.; Dr. Albert Lee, Omaha, Neb.

Honorary members—Dr. John B. Deaver, Philadelphia; Hon. Chauncey I. Depew, New York; Hon. Alex. G. Cochran, St. Louis; Dr. J. W. Ayer and Dr. H. Darling, Cape Town, South Africa; Hon. B. L. Johnson, Kansas City, Mo.

The selection of the place for the holding of the next meeting was discussed and it was on motion agreed to leave the selection of time and place to the Executive Committee.

The cities of Pittsburg, St. Paul, Chicago and Toledo were suggested and a motion prevailed requesting the committee to select one of these cities.

CORRESPONDENCE.

AGAINST NEWSPAPER ADVERTISERS.

West Plains, Mo., May 25, 1896.

Editors Tri-State Medical Journal, St. Louis, Mo.

Dear Sirs:—Your stand against the newspaper advertising doctor ought to be encouraged by every physician in the State who has at heart the best interests of his profession, and as the most practical way to lend such encouragement is by subscribing to your journal, I enclose $1.00 for same.

Yours truly,

H. C. Shuttee.

Wanted.—Young physician, regular graduate, well educated, speaks several languages, experienced, desires to form partnership with elderly doctor or would like to know of a good location.

Address, "Doctor," Wellsford, Kansas.

RENEWAL.

Pleasanton, Iowa, Feb. 19, 1896.

James Moores Ball, St. Louis, Mo.

Dear Sir:—Enclosed find M. O. for one dollar to pay subscription of Tri-State Medical Journal from March 1895 to 1896. The Journal is all right.

Respectfully, I. M. Lovett.

FIFTEEN NEW SUBSCRIBERS.

Keokuk, Iowa, February 7, 1896.

Editor Tri-State Medical Journal:

Dear Doctor:—Please send the Journal to the following addresses. They are students of medicine, who are attending the P. & S. of Keokuk. Enclosed find P. O. money order for full amount:

Albert Anderson, Keokuk, Iowa, P. & S. College.
F. A. Bare, Keokuk, Iowa, P. &. S. College.
J. M. Gahringer, Keokuk, Iowa, P. & S. College.
J. P. Hedrick, Keokuk, Iowa, 909 High street.
J. S. Hamilton, Keokuk, Iowa, P. & S. College.
E. O. Hanson, Keokuk, Iowa, P. & S. College.
N. A. Jones, Keokuk, Iowa, Box 406.
W. A. Millen, Keokuk, Iowa, 423 N. Tenth.
Shannon McRill, Gilson, Illinois.
G. B. Ross, Newark, Missouri.
A. J. Roush, Troy, Iowa.
R. St. Clair, Keokuk, Iowa, P. & S. College.
C. G. Turner, Keokuk, Iowa, P. & S. College.
Miss Maud Thomas, Keokuk, Iowa, P. & S. College.
O. T. Wertz, Keokuk, Iowa, P. & S. College.

Respectfully, E. O. Sisson, M. D.

IMPORTANT LETTER.

CITY OF ST. LOUIS,
MILK INSPECTOR'S OFFICE,
ST. LOUIS, May 1, 1896.

To the Chief Medical Directors of Life Insurance Companies:

Gentlemen:—We are convinced that the great prevalence of tuberculosis among dairy cattle and the transmission of infection to human beings through the meat and especially through the milk of such animals is not second in importance to any question confronting the intelligent medical men of the day.

I have demonstrated the presence of bacillus tuberculosis not only in the lesions and pus but in the *milk* of cows apparently healthy which reacted to the tuberculine test, establishing the identity of bovine with human tuberculosis and confirming the examinations of Doctors Salmon, and Smith of the U. S. Department of Agriculture, Ernst and others.

I am not aware that this aspect of the subject has been at any time brought to the attention of Life Insurance Companies. Its direct bearing upon the public health and consequently upon the death rate should commend it especially to them as a problem the practical solution of which would result in a saving of thousands of lives and of millions of dollars annually. Not only would the death rate be reduced but an improved vitality developed in coming generations by avoidance of entry into the system of toxic germs, which, if they do not directly lead to conditions resulting in death may lie dormant until the general vitality is sufficiently lowered to permit their full development.

In bringing this matter to your attention I desire to request an energetic and persistent demand from the medical profession in general, and from the directors of Life Insurance Companies in particular for the enactment in all States of protective legislation, protection that *will* protect and benefit our whole people and diminish the ravages of this most insidious and dreaded enemy of the human race.

Very respectfully,
HOWARD CARTER, M. D.,
Milk Inspector, St. Louis.

IN RE THE ST. LOUIS MEDICAL SOCIETY.

ST. LOUIS, June 10, 1896.

JAMES MOORES BALL, M. D.

Dear Sir and Friend:—I am more than pleased to see the stand taken in the May number of the TRI-STATE JOURNAL in regard to the newspaper notoriety sought by certain members of the St. Louis Medical Society. The same stand should be taken with members of the faculties of our medical schools. Very many of the instructors in these institutions are there not through their fitness for such positions but for the reason that their financial assistance or their known adhesive qualities to those who are specialists in the more remunerative branches of the profession, are well known, and who suffer themselves to be used as the monkey used the cat—to rake the chestnuts in and to lend their time and other means to boom men of very inferior qualifications into prominence. Such action on the

part of those who above all others ought to be above all manner of suspicion by their fellow physicians, deserves the most sweeping condemnation. The St. Louis Medical Society has for years been used by certain members as a place in which to laud themselves and their adherents to their thorough edification and to the disgust of many thinking men. There are to-day some of the best men in the profession who are not members of the Society, and have no desire to become so on account of the clannish condition existing in the body. Give us a good clean Society and I doubt not that nearly all who are not members now soon would become so—and many of the faces of well known medical men who are rarely seen at the Society's meetings would be there ready to take part for the advancement of all and not for one clan nor the other.

Respectfully yours,

H. E. THOMPSON, M. D.

Resigned.—Dr. T. A. Martin has resigned the lectureship of diseases of children in the Missouri Medical College.

Illinois Charities.—According to the financial statement of the State charitable institutions for the quarter ending March 31, as prepared by the Secretary of the State Board of Public Charities, the average number of inmates, average cost per capita for maintenance and the total cost have been as follows:

	Av. No. Inmates.	Av. Per. Cap. Cost.
Northern Insane Hospital	1134	$33 46
Eastern Insane Hospital	2065	36 13
Central Insane Hospital	1281	24 53
Southern Insane Hospital	838	33 04
Insane Criminals	125	47 25
Deaf and Dumb Institution	414	62 46
Institution for the Blind	195	57 87
Asylum for Feeble-minded	587	37 83
Soldiers' Orphans' Home	421	30 34
Eye and Ear Infirmary	134	49 26
Soldiers' and Sailors' Home	1216	24 56
Home for Juvenile Female Offenders	56	58 43
Industrial Home for Blind	37	60 76
Total number of inmates	8,503	
Av. net cost per capita for maintenance		34 31
Av. gross cost per capita for maintenance		38 67

The total expenses of the institutions were $328,812.37, and the cost to the State was $291,744.46.

The number of inmates present at all the institutions at the beginning of the quarter was 8371; since admitted, new, 764; former inmates, readmitted, 176; absentees returned, 319; total number of inmates for the quarter, 9630; discharged or absent, 967; number died, 141; number present at end of quarter—males, 4013; females, 4509.

Elected.—At the recent meeting of the Southern Illinois Medical Association, the following officers were elected: President; J. I. Hale, of Anna; First V. P., W. T. Patterson, of Decatur; Second V. P., C. F. Wilelmj, of East St. Louis; Recording Secretary; J. O. DeCourcy, of St. Libory; Assistant Secretary, H. L. Gault, of Sparta; Treasurer, H. C. Mitchell, of Carbondale. The next meeting will be held in Centralia.

MEDICAL SOCIETY MEETINGS FOR 1896.

LOCAL SOCIETIES.

I. St. Louis Academy of Medical and Surgical Sciences, meets every Friday evening.

II. St. Louis Medical Society, meets every Saturday night, in Public Library Building, Ninth and Locust Streets, at 8 o'clock.

STATE AND NATIONAL MEETINGS.

June 1–2. New Hampshire State Medical Society, at Concord.
June 3. Maine Medical Association, at Portland.
June 4. Rhode Island Medical Society, at Providence.
June 4–5. Ontario Medical Association, Windsor.
June 4–5. Michigan State Medical Society, at Mt. Clemens.
June 9–10. Massachusetts Medical Society, at Boston.
June 16–17. Army and Navy Medical Association, at Havana, Ill.
June 16–18. Colorado State Medical Society, at Denver.
June 17. Minnesota State Medical Society, at Minneapolis.
June 20. American Association of Physicians and Surgeons at Niagara Falls.
June 23. Medical Society of New Jersey, at Asbury Park.
June 23. Medical Society of Delaware, at Newark.
June —. American Association of Genito-Urinary Surgeons, at Atlantic City.
June —. Association of Military Surgeons of the United States, at Philadelphia.
June —. Nebraska State Medical Society, at Fremont.
June —. Oregon State Medical Society, at Portland.
June —. Wisconsin State Medical Society, at Superior.
June —. Kentucky State Medical Society, at Lebanon.
July 15. American Ophthalmological Society, New London.
July —. Medical Society of West Virginia, at Wheeling.
August 12. New Mexico Medical Society, at Socorro.
September 8. American Dermatological Society, at The Springs of Virginia.
September 15. American Association of Obstetricians and Gynecologists, at Richmond, Va.
September 17. Medical Society of the Missouri Valley, at Council Bluffs, Ia.
September —. Medical Society of Virginia, at Danville.
September —. Idaho State Medical Society, at Boise City.
September —. American Electro-Therapeutic Association, at Boston.
October 1–2. Utah State Medical Society, at Salt Lake City.
November 10. Southern Surgical and Gynæcological Association, at Nashville, Tenn.

Secretaries of Medical Societies will confer a favor by informing us of dates of meetings.

SOCIETY REPORTS.

TRI-STATE MEDICAL SOCIETY OF IOWA, ILLINOIS AND MISSOURI.

Fourth Annual Meeting, held in Chicago, April 7, 8 and 9, 1896.

[CONTINUED FROM APRIL NUMBER.]

DR. BYRON ROBINSON, of Chicago, concurred with the essayist that the microscope alone is insufficient in many cases to enable surgeons to make an accurate diagnosis of malignant disease of the cervix. More stress should be laid upon the clinical history of the case.

Diffuse Pelvic Inflammation.—A paper on this subject was read by DR. L. H. DUNNING, of Indianapolis. This author reported five cases in which vaginal hysterectomy was resorted to for inflammatory disease of the uterus and appendages. In all of the cases except one, the uterus on removal was not found to be markedly diseased beyond a glandular endometritis. In the two cases in which the uterus and appendages were fixed the operation was most difficult. The uterus in either case was only slightly diseased. The chief pathological lesions were double pyosalpinx and pelvic peritonitis. The operation would have been easy and the results quite as good by the abdominal method. In these cases the appendages were much more inaccessible and less open to ocular inspection than in the abdominal operation. In his experience in clamp cases the pain after vaginal hysterectomy is greater the first two days than after celiotomy. The systemic disturbances, as evidenced by the temperature and pulse rate, do not vary much in the two methods. The temperature after vaginal hysterectomy is lower the first three or four days but is higher after six or ten days, when the sloughs begin to give way. In two cases in which ligatures were employed instead of clamps, abscesses in the stumps of the broad ligament followed, retarding the recovery of the patients. Many cases of abdominal section were done in the hospital during the same time, and in none of them did abscess appear. In one case of the five prolapsus of the vaginal walls appeared a few weeks after the patient began to walk around. This was a ligature case. Such a prolapsus he had never witnessed in a forceps case. In three of the cases the same pain and nervousness followed the recovery as is sometimes witnessed in cases of abdominal section. In two of the cases the pain and nervousness passed off after several weeks, as they usually do after abdominal section.

DR. RUFUS B. HALL said that women should be educated up to the point of avoiding septic infection, suppurating tubes and ovaries, and the young men should likewise be educated to avoid gonorrhœa in order to prevent infecting their wives in future years.

DR. T. J. WATKINS, of Chicago, said that all large pus collections in the pelvis that can be opened and efficiently drained without entering the peritoneal cavity should be treated by incision and drainage through the vagina or above Poupart's ligament. Vaginal hysterectomy should be the operation of election in old backward displacements in which the uterine appendages are destroyed by suppurative disease.

Dysuria in Women.—A paper was read by DR. O. B. WILL, of Peoria, on this subject.

DR. E. O. SISSON, of Keokuk, Ia., followed with a paper entitled "Ulcerative Inflammation of the Cornea." He first dwelt upon the etiology, then passed on to the subdivisions of keratitis suppurativa. Symptomatology and complications were next considered. In the treatment of corneal ulcers the author reiterated the methods laid down in the several text-books.

Pylorectomy in America.—By DR. ALEX. HUGH FERGUSON, of Chicago. The author reported a case of carcinoma of the pylorus upon which he had successfully operated. He recommended pylorectomy for carcinoma of the pylorus for the following reasons: (1) Medical treatment offers a mortality of one hundred per cent. within twelve or eighteen months. (2) Pylorectomy promises a possible cure. In nineteen per cent. of over nine hundred cases dying with cancer of the pylorus no adhesions whatever were found after death; starvation took place before the carcinoma had reached the peritoneum. There would be good prospects of curing most of these. Recovery follows the operation in about fifty per cent. of the cases. By timely interference many cases can be saved that now go on to secondary infection and are doomed.

After opening the abdomen, Dr. Ferguson recommends the performance of pylorectomy thus:

1. Liberate the duodenum from the pylorus, unite its distal cut end to the posterior surface of the stomach with Murphy's button, invert the proximal cut end toward the pylorus, and close with sutures. The great advantage of completing the gastro-duodenostomy first is that the operation can be safely stopped at this stage should the patient show signs of weakening, the abdomen is at once closed, and the removal of the pylorus be left for a second operation.

2. Separate the stomach from the pylorus and close it rapidly with sutures. Should the patient now present alarming symptoms, the surgeon should again cease operating and leave the pylorus *in situ* in the meantime. It would, of course, be necessary to fasten it in the abdominal wound and drain it externally, which would only facilitate its extirpation at another time.

3. Remove the cancerous pylorus. Spend no time in trying to use interlocking ligatures, but apply forceps after forceps and cut the mass away. This done, the application of ligatures can be effected more expeditiously.

Local Treatment of the Eye was the title of a paper contributed by Dr. Dudley S. Reynolds, of Louisville, in which he said that the local treatment of this organ was as much in need of reform and readjustment as any other department of surgery, for there had been little change in prevailing custom for nearly a hundred years. He considered the yellow oxide of mercury very valuable as a local application in nearly all forms of ulceration or abrasion of the cornea and conjunctiva. The tension of the eyeball should be noted in every case of injury, and, if found slightly increased, a solution of eserine should be instilled, a saline purgative administered, and, if the increased tension be accompanied by a sense of pain on pressure upon the globe, it is best to begin with salicylate of sodium or ammonium at once. Hot ablutions are often of great value in cases of irritation of the iris and ciliary body, whether due to constitutional or to local causes.

Criticisms of Sero-Therapy.—Dr. Paul Paquin, of St. Louis, Mo., read a paper entitled "Observations of some Criticisms of Sero-Therapy." No department of therapeutics, he said, had called forth so much criticism as sero-therapy. These criticisms had been of two kinds—those based on scientific problems of biology, and those based on clinical effects and results.

As to the beneficial effects of serum, he thought these depend unquestionably in a great measure upon increased phagocytosis. The serum increases the white cells, whose duty it is in part to destroy micro-organisms in tissues and their toxins, probably by a process of cellular digestion, or rather a diastatic neutralization. In a tuberculous man of thirty-five years, in whom the white cells were less than 16,500 per cubic millimeter, they were increased to over 40,000 in seventeen days by the daily injection of two cubic centimeters of anti-tubercle serum. The author obtained a similar result in a rabbit in which he had injected the Roux anti-tubercle serum daily for three days, the dose being one cubic centimeter.

DR. FRANK ALLPORT, of Minneapolis, read a paper in which he pointed out the relations which should exist between ophthalmologists and opticians. He advanced strong arguments in favor of licensing opticians to fit glasses. The fitting of glasses was not a trivial affair, but necessitated in many instances a thorough examination of the eyes by a properly equipped, specially trained medical practitioner.

The Operative Treatment of Jacksonian and Focal Epilepsy, as Illustrated by Selected Cases.—By Dr. Charles B. Nancrede, of Ann Arbor, Mich. He said the cases reported demonstrated what had been the experience of Horsley, Keen, and other surgeons; namely, lack of permanency in results. The removal of the discharging lesion in cortical and Jacksonian epilepsy could only be regarded as palliative. The earlier the operation was done after the disease had become established, the longer the immunity. It is possible that if trephining were resorted to early, the operation in a few

instances might prove curative, if a reliable method were devised to lessen the inevitable scar and to prevent adhesions between the membranes and brain.

Some Needed Reforms in Medicine.—This was delivered by Dr. Joseph M. Mathews, of Louisville. He first dealt with specialism. Professors in medical colleges should impress upon the minds of students that thorough preparation is necessary to be a specialist, and unless this is done specialism would be brought into disrepute. No man can be a specialist in any department of medicine who has not fitted himself and has had experience in general practice.

Reform is needed in the appointment of medical men to medical institutions. Too often petitions are circulated and signed in favor of men without considering their professional qualifications.

Expert testimony should be raised to a higher plane, and those who testify as experts should receive adequate compensation.

The old rule that applied to consultations does not hold good to-day. At the present time a patient belongs either to the physician or to the specialist, and not to both alike. When a specialist recognizes that a patient does not require his special attention he should call a physician. *Per contra*, when a physician recognizes that a patient needs special attention he should give the patient to the specialist. As to the Code of Ethics, this document needed no defense from him. Not a man or woman could raise any objection to what is taught therein.

The State Board of Health of Kentucky had succeeded in driving out of the State within the last two years over eight hundred and sixty quacks. This was accomplished by the concerted action of the medical profession and the representatives in the State legislature.

Early Operations in Appendicitis.—DR. R. HARVEY REED, of Columbus, O., contributed a paper on "Some Practical Reasons for Early Operation in Appendicitis." The following conclusions were drawn: (1) That the appendix vermiformis is a useless rudiment. (2) That chronic catarrhal appendicitis is always dangerous and liable to be followed at any time by hazardous and even fatal results. (3) That medical treatment is of little or no permanent value in this class of cases. (4) That the only safe and reliable method of treating chronic catarrhal appendicitis is the prompt amputation of the appendix. Cases were then reported illustrating the importance of early operative interference and the arguments of eminent surgeons advanced in its favor.

Surgical Tuberculosis.—DR. D. C. BROCKMAN, of Ottumwa, Ia., followed with a paper entitled "Observations in the treatment of Surgical Tuberculosis." He called attention to three remedies which he had used in the treatment of this disease—guaiacol internally and iodine trichloride and iodoform emulsion locally. He thinks guaiacol is an efficient remedy for the septic condition which accompanies tuberculosis, when judiciously

used. Iodine trichloride he uses in vesico-tuberculosis. In the management of tuberculous abscesses there is no treatment that could compare with the use of iodoform emulsion.

DR. ELMER LEE, of Chicago, read a paper on the "Treatment of Pneumonia without Drugs." The author had recently instituted in his practice a sprinkling bath, which he illustrated. Pneumonia cases treated by scientific hydriatic measures are convalescent at the end of the first week. Complete recovery is proportionately shortened. It is the author's belief that this method of treatment is the quickest, surest, and best management of pneumonia.

Conservative Surgery in the Treatment of Hemorrhoids.—By DR. JOSEPH B. BACON, of Chicago. He had found in looking over his records that but a very small per cent. of his operative cases had been purely internal or external hemorrhoids. Patients who were suffering or bleeding sufficiently to cause them to seek medical advice were those who had a mixed form of piles, in which the anastomosing vessels connecting the external and internal hemorrhoidal veins had become varicosed, and these dilated veins pressed upon the sensory nerve filaments over the inner border of the external sphincter muscle, causing pain and prolapse of the internal hemorrhoids. A segment of the varicose system of veins must be removed, one segment on each side of the anus being sufficient. Remove those hemorrhoids that are causing the discomfort together with the external or skin tags, and the patient is cured, and only a small surface of either skin or mucous membrane had been disturbed. The ligature, clamp, and cautery, or crushing method, according to the choice of the surgeon, would answer the purpose.

Leucocytosis—Its Relation to Modern Therapy.—This paper was read by DR. THOMAS O. SUMMERS, of St. Louis, Mo.

DR. ALEXANDER C. WIENER, of Chicago, exhibited cases of spastic torticollis treated with an extension apparatus combined with corsets.

DR. GUSTAV FUETTERER, of Chicago, described a method of treating gonorrhœal infections of the knee-joint by injections of oil of sandalwood. He employs the best preparation of this kind made and his results have been gratifying.

Clinics.—Clinics were given at the Post-Graduate Medical School by Dr. J. B. Murphy, before the members of the society; at Rush Medical College by Drs. J. H. Etheridge, Fernand Henrotin, and Nicholas Senn.

The following officers were elected for the ensuing year: President, Dr. A. H. Cordier, Kansas City, Mo.; First Vice-President, Dr. Hugh T. Patrick, Chicago, Ill.; Second Vice-President, Dr. H. C. Eschbach, Albia, Ia.; Secretary, Dr. George W. Cale, St. Louis, Mo.; Treasurer, Dr. C. S. Chase, Waterloo, Ia.

St. Louis was selected as the place for the next meeting.

HARRISON COUNTY MEDICAL SOCIETY.

BETHANY, MO., June 1, 1896.

The Harrison County Medical Society met at Dr. T. B. Ellis' office in this city on Thursday, May 21st. The society was called to order with Dr. A. H. Vandivert of Bethany, President, in the chair and Dr. C. H. Robertson, of Washington Center, acting Secretary.

Two applicants were elected to membership, a number of interesting and important cases were presented for diagnosis, treatment or discussion and election of officers held for the ensuing year.

Dr. M. F. Weyman, of St. Joseph, was present, took part in the discussions and added much to the interest of the session.

Dr. A. H. Vandivert, of Bethany read a paper on "Antitoxins;" Dr. J. W. Kavanaugh, of New Hampton, exhibited a peculiar case of injury to the thigh inflicted by the tooth of a hay rake and explained treatment and showed favorable termination.

Dr. C. A. Mitchell, of Blythesdale presented a case for diagnosis, which upon consultation was decided to be a brain tumor.

Dr. N. E. Sutton, of Blue Ridge, presented a case of double cataract loss of sight, total in one eye, in the other failing. Advised against operation but recommended nerve tonics, electricity and properly adjusted glass to preserve remaining sight.

Dr. T. B. Ellis exhibited a case of blepharitis marginalis of twenty-two years' duration.

Dr. A. C. Reynolds, of Martinsville, presented a case of ear disease for diagnosis, the patient being his own daughter. After careful examination by Dr. Weyman made a diagnosis of "perforation of drum, due to chronic suppuration of middle ear, and granular catarrh or lymphoid hypertrophies of pharanyx."

Dr. Vandivert presented a case for examination. Through the charity of a few ladies the patient was sent to St. Joseph, where one eye will be enucleated, the other treated.

The officers for the ensuing year are: President, Dr. M. S. Reynolds, Hatfield; First Vice-President, Dr. N. E. Sutton, Blue Ridge; Second Vice-President, Dr. C. A. Mitchell, Blythesdale; Treasurer, Dr. A. H. Vandivert, Bethany; Secretary, Dr. T. B. Ellis, Bethany.

The Society then adjourned until the next regular quarterly session which will be held again in Bethany on Thursday, Aug. 21, 1896. The Society in a body then visited the Heilbronn Springs Sanitarium Hotel, where an excellent supper was tendered the Society by Dr. A. H. Vandivert.

Southeast Missouri Association.—The twentieth annual meeting of the Southeast Missouri Medical Association was held in Kennett, May 5 and 6, about 30 members being present. Dr. Howle, of Oran, presided. At the

annual election of officers Dr. F. Kinsolving, of Hornersville was elected President; Dr. W. N. Howard, of Cape Girardeau, Vice-President; Dr. A. D. Blomeyer, of Cape Girardeau, Corresponding Secretary; Dr. H. S. McElmurry, of Charleston, Recording Secretary; Dr. R. T. Henderson, of Jackson, Treasurer. Interesting papers were read by Dr. Bondurant, Dr. Rosanthal and Dr. Markel.

American Medical Association.—The following are the names of the officers for the ensuing year: President, Dr. Nicholas Senn, of Illinois; First Vice-President, Dr. George M. Sternberg, of the United States Army; Second Vice-President, Dr. Edmund Souchon, of Louisiana; Third Vice-President, Dr. K. D. Thomas, of Pennsylvania; Fourth Vice-President, Dr. W. T. Westmoreland, of Georgia; Treasurer, H. P. Newman; Assistant Secretary, Dr. T. F. Sneidman, of Pennsylvania; Librarian, Dr. George W. Webster, of Illinois; Chairman of Committee on Arrangements, Dr. H. A. Hare, of Pennsylvania; Trustees, Dr. G. C. Savage, of Tennessee; Dr. E. E. Montgomery, Dr. J. M. Matthews, of Kentucky, and Dr. C. A. Reed, of Ohio; Judicial Council, Drs. George W. Stoner, United States Marine Hospital; J. McGaslon, of Georgia; I. Brumby, of New Jersey; C. H. Scott, of South Carolina.

The Journal of Eye, Ear and Throat Diseases has just appeared under the editorship of Drs. Francis M. Chisolm and John R. Winslow, of Baltimore, and is a credit to them and to the Presbyterian Eye, Ear and Throat Charity Hospital, under whose auspices it is issued.

Liberal Offer.—In the advertisement in this issue, of Theodore Metcalf Co., of Boston, there will be found an offer that is exceedingly liberal, and one our readers should avail themselves of. It is not often that $15 is exchanged for $5.

The Code a Guide.—The Code of Medical Ethics is an acknowledged guide to physicians in their intercourse with each other and with their patients. Experience has proven that where its teachings are honestly observed the results are alike beneficial to themselves and their patrons, but it is the observance of the SPIRIT of the Code, as well as the letter, that produces the salutary results. We have seen, during a somewhat extensive and varied practice of medicine during many years, that often physicians who were professedly great sticklers for the Code, by word or deed violated the spirit of that paper in every particular. To an honest, well-educated physician the Code is of no very great importance. He does right in all his dealings with his patients and patrons and in all his relations with other physicians. The Code teaches neither more nor less than this.

Organization of medical men into societies in counties and States is for the purpose of teaching the profession their relation one to another and the public, and to foster its teachings.—*Eureka Springs Medical Journal.*

THE PUBLISHER'S DESK.

Campho-Phenique.—Cuthbert Bowen, M.A., M.D., F.R.M.S., General Hospital, Bridgetown, Barbadoes, West Indies, written under date of May 10, 1896.

I have used campho-phenique both in its liquid and powdered form as a dressing for wounded surfaces of every description, and I have no hesitation in pronouncing it to be the most satisfactory antiseptic application which has come under my observation as yet. Its freedom from unpleasant odor renders its employment by the general practitioner far preferable to that of iodoform while the results obtained are, as far as my experience goes, quite as good as those of iodoform.

Bœhringer's Products.—If you want a chemically pure Cocaine Muriate, in handsome, large crystals, free from every impurity, the highest standard product—specify *Bœhringer's.*

If you want an absolutely pure quinine sulphate, in light, flocculent crystals, the finest and Best made—specify *Bœhringer's.*

If you want standard chemicals, alkaloids, etc.—such as atropine, codeine (pure, phosphate, sulphate, etc.), chloral, eserine, resorcin, terpin, hydrate, etc.—specify *Bœhringer's.*

Wholesale and retail druggists throughout the United States carry Bœhringer's (B. & S.) products in stock to promptly supply all demands; and if information is wanted, enquiries addressed to the firm will receive prompt attention and response.

Who?—Who does more good in the world than they who relieve suffering humanity? I have used Sanmetto in many cases where it was indicated, such as enlarged prostate of old men, and in cystitis and gonorrhea. I truly believe that I have carefully tested every remedy in the Pharmacopœia for these distressing and painful affections of humanity, and none give relief like Sanmetto. In one case where solid casts from the urethra were voided (resembling chicken guts), where micturition was so frequent as every ten or fifteen minutes night and day, and where the catheter would not pass into the bladder Sanmetto brought relief. I consider it the great reliever of these affections.

Webster, W. Va. C. N. Brown, M.D.

Electrolysis for the Surgical Treatment of Strictures.—J. A. Fort, M. D., Professor of Anatomy of the Ecole Pratique of the Paris Faculte de Medecine, read a paper before the New York Academy of Medicine, of which the following is an extract:

It affords me great pleasure to have the honor of being allowed, through the kindness of your President, to present to you a new instrument which I have devised and called "electrolyser" for the surgical treatment of strictures by the "linear electrolysis" method.

It is a well-known fact that electrolysis has been discarded on account of the imperfect instruments which were used. My electrolyser has all the advantages of the urethrotome and none of its inconveniences. It looks like a small whip, of which the handle contains a metallic wire projecting

from the end, which connects with the flexible part. This instrument, being first introduced into the urethra, is connected with the negative pole of a continuous current battery, and the positive pole is connected near the affected part, on the front of the thigh or over the pubes; then the current is turned on.

The operation, which is almost painless, requires thirty seconds (on an average), with a current of a strength of at least ten milliamperes, as indicated by means of a galvanometer. The electrolyser remains perfectly cool during the operation. In nearly all cases there is no bleeding, or but very little. The urethra is made aseptic before and after the operation, in order to prevent fever. I never allowed a sound to remain permanently in the urethra for any length of time after the operation.

Usually the wound resulting from electrolysis heals quickly without any local treatment whatever, and often the patient can attend to business immediately after the operation. When the wound does not heal, I merely prescribe injections morning and evening with one part of hydrozone to twenty parts of water. In nearly all cases I pass a sound the third day after the operation, also the day after. I instruct the patient to pass a sound, No. 22 or No. 24 F., every month and every other month.

With the urethrotome, which cuts blindly, the surgeon can not ascertain the degree of density of the tissue of a stricture. On the contrary, by means of electrolysis, which merely produces a molecular destruction of the stricture, although the instrument remains cool, I have been able to demonstrate that there are two classes of stricture—"soft and hard." Hard strictures are in the proportion of one against five soft ones.

The time required to perform the operation varies with the density of the stricture. Some strictures are so hard that they cannot be successfully operated upon by electrolysis.

Up to date I have performed, in Europe, a hundred and thirty-five operations on strictures of the esophagus (recorded in my book), and with the exception of those which were caused by malignant growths of the wall of the esophagus, all recovered.

It has been my good fortune to meet here some leading surgeons who are authorities in the treatment of stricture, and I am very grateful to them, for their kindness in giving me the opportunity to demonstrate the advantages of my method in operating upon some of their patients.

Cactina.—Dr. Chas. Winfield Scott in his work on "Key Notes of Health" says: Acute disease weakens the heart by exhausting its nervous energy, interfering with its nutrition, and lowering its general tone, hence the importance of using Cactina Pillets in all acute disease, fevers, etc.

Febrinol (Fuller & Fuller Co).—In the treatment of Malaria in any form, remitting, intermitting and typhoid fevers, neuralgia of all kinds, the administration of ten grains "Febrinol" (Fuller & Fuller Co.) three times a day will relieve all pain, keep the patient comfortable, and greatly shorten the attack.

When administered with quinia, salicylic acid, or salicylate of soda, Febrinol not only aids the actions of these remedies, but prevents the disagreeable head symptoms, and entirely relieves the distress caused by these remedies in the stomach.

A Proposed Journal of Medical History and Geography.—We have received a copy of an announcement to the effect that an international journal devoted to the history of medicine and to medical geography is soon to be started. The journal is to be called *Janus*, and is to be published in Amsterdam. The articles as we understand the circular, will be in German, English, or French. It is expected that the first number will be issued in May or June, and that thereafter the numbers will appear every other month. The announcement is interesting as showing the tendency to specialization in medical journalism; it is further noteworthy as being the first example, so far as we know, of a German document printed in Latin type with that peculiar combination of consonants which in Gothic type looks like *sz*, but has the force of *ss*, transliterated into *sz*. For example, the words that are ordinarily printed, when Latin letters are used, *dass*, *muss*, and *grösseren* figure here as *dasz*, *musz*, and *gröszeren*. This is rather perplexing at first sight, and we hope it will not come into vogue. —*New York Medical Journal.*

Accurate Administration of Lithia.—Wm. R. Warner & Co.'s original Lithia Water Tablets (3 and 5 grains) admit of an accurate dosage of Lithia not to be obtained in any natural Lithia Water.

These tablets are securely packed so as to maintain their permanency, in consequence of which, when a Lithia Water Tablet is placed in a glass of water it quickly dissolves, effervescing in so lively a manner as to excite the interest of the patient to such a degree, that the unpleasant thought that he is about to take a medicine, does not arise. Now that Lithia has become a valuable remedy for rheumatism, lithemia, gout, gravel, Bright's disease, etc., these tablets are without doubt the most convenient method to administer it, as enough Lithia Water Tablets may be carried in the pocket to make 2½ gallons Lithia Water of definite strength.

The Wide-Awake Tailoring Co. 2735 Franklin Ave.—It is doing good work and has a good trade. It was established by Mr. M. Weinberg between three and four years ago. Mr. Weinberg is a young man and an energetic worker. Not only is he a practical tailor, but he is an experienced and skilled cutter, having learned the art of cutting in one of the best schools in New York City, and he keeps up with the fashions and turns out as good work as any tailor in the city. The suits he makes are as fashionable in cut as those made by the most expensive tailor, but his charges are scarcely half as much as those of town houses. He makes pants to order from $3.00 up to any price, according to the goods selected. Elegant suits are made, for as little as $13, worth $20 down town, and they are guaranteed as to material, workmanship and fit. It is worth while to remember these facts, for we are all trying to save money nowadays.

Mr. Weinberg will send for and deliver goods, and all the work will be found first class in every respect. He can save you many a dollar if you patronize him, and the work can be relied upon. There isn't in all the West End a tailor who has better deserved the support of the people, and we are satisfied that he will keep on giving the best satisfaction to every patron.

Mr. Weinberg pays particular attention to the Medical Student trade; Graduating suits being a specialty.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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Vol. III. SAINT LOUIS, JULY, 1896. No. 7.

CITY HOSPITAL SYMPOSIUM.

I.

Views of Doctor A. C. Bernays,

Professor of Anatomy and Clinical Surgery in the Marion-Sims College of Medicine of St. Louis.

MR. Editor: In answer to your request for my views on the building of a new City Hospital, allow me the following suggestions :

Location: As near the geographical center of the city as is convenient and practicable.

Size: To accomodate 1,000 patients.

Plan: Small central administration building surrounded by hospital ward buildings, each to be two stories high, and to contain forty-eight beds, arranged according to following table:

WARDS.	MALE.	FEMALE.	FOR CHILDREN.
Medical	4	3	
Surgical	3	1	
Gynæcological		1	
Obstetrical		1	
Infectious	1	1	1
Venereal	2	1	
Private pay	1, lower floor men, upper floor women.		
Total	10	1	9

20 wards, of 48 beds each, equals 960 beds.

Of the advisability and convenience to the public of the existence of private pay wards there can be no doubt, and these forty-eight beds can be

made to render a handsome sum, which may be used to pay the small salaries of the assistants. There is no question in my mind that a salary, be it ever so small, should be paid to each one of the young physicians who are resident assistants in the hospital.

The plan as arranged above would, of course, contemplate the sale and abolition of the present Female Hospital.

The plan must be arranged so as to give proper regard to ventilation and drainage and heating of the most approved models that are now used in new hospitals in this country.

There will have to be an autopsy house and pathological laboratory in a separate building. The kitchen, laundry and boilers may be arranged together, or as is shown in the adjoining sketch:

The amphitheater should be large enough to seat the senior classes of all the colleges together, and should be built in connection with one of the surgical ward buildings. The gynæcological, each surgical, one of the medical, the obstetrical, one of the syphilitic, and the private pay ward should have a small operating room.

The lower floor of the administration building should contain the reception, registration and examination room, as well as parlor and library for visiting physicians and surgeons. It must also contain the dispensary and out-patient department. The offices and living rooms of the directors and their families would be found upon the upper floor. It is contemplated that a surgeon, a physician, and a gynæcologist and obstetrician be at the head of three departments, and that a chief steward and a secretary be engaged to manage the business of the institution.

The two nurses would have apartments in the ward buildings on the upper floor, and one assistant physician would have his room in each pavilion on the ground floor.

These are my views, given upon the spur of the moment, and no doubt are as imperfect as you could expect from one who has not made a special study of hospital architecture.

Respectfully,

A. C. BERNAYS.

II.

Views of Doctor H. C. Dalton,

Professor of Abdominal Surgery in the Marion-Sims College of Medicine of St. Louis.

The new City Hospital, which is now a necessity rather than a hope, should be built upon the site of the old building.

The location, in my opinion, is better than any that could be obtained elsewhere. It is central; that is, near enough to the densely populated districts to be reached quickly and easily, yet it is far enough away from the noise and dust of principal business blocks to insure quiet and comfort to

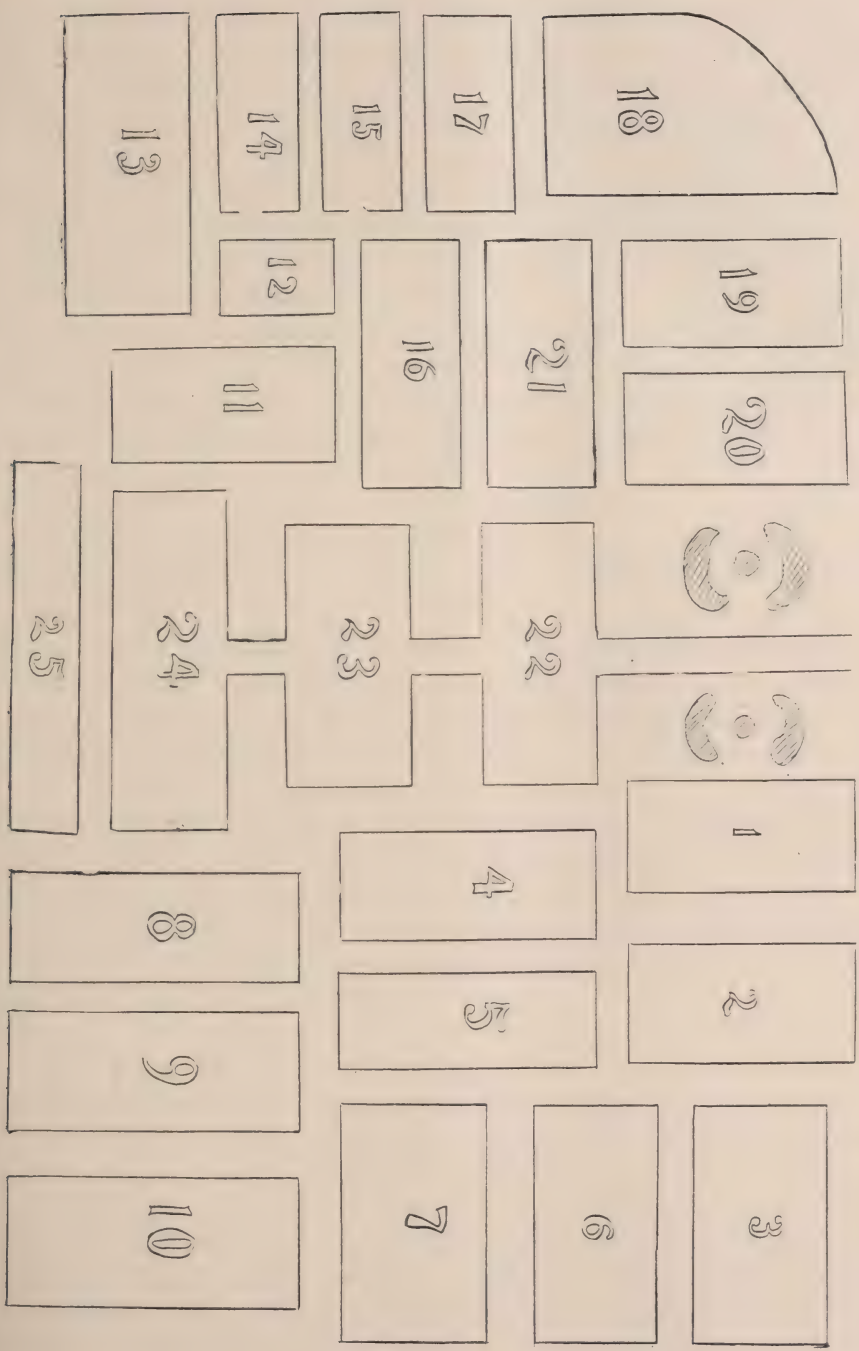

Diagram of Hospital on Pavilion Plan. Figs. 1 to 20 represent wards. Fig. 18 is the mphitheatre; 25, administration building; 22, 23, 24, laundry, boiler-room and kitchen. (After sketch by Dr. Bernays.)

the patients. The site affords ample room for all needed buildings, and there would still be room for good-sized grounds.

As to the plan, I think I am in accord with a vast majority of the profession, when I say that the "Pavilion Plan" is the only one which should be considered for a general hospital.

All administrative buildings, offices, physicians' quarters, etc., should be entirely separated from the wards. These wards should be so constructed that there shall be no difficulty in keeping them surgically clean; this applies with equal force to both medical and surgical wards. The laundry, kitchen and other necessary departments should be removed as far as possible from other parts of the hospital.

Chronic cases, and many convalescents, could probably be better cared for at a separate hospital, connected with the Poor-House, than at the regular City Hospital. I would place the obstetric wards at the new City Hospital.

The necessary capacity is probably about 800 beds; but by the plan outlined it would be easy, and not very expensive, to increase the capacity to almost any extent.

It seems to me that the special features most needed are:

A complete pathological laboratory, including a museum for the preservation of pathological specimens;

A chemical laboratory, especially fitted for urinalysis and toxicological investigations;

Ample clinical facilities for the proper demonstration of the practical features of both medicine and surgery.

I think the above is imperatively demanded for the new City Hospital. The cost is a matter upon which I am not informed, but I think that it certainly will not be beyond the capacity of the great city of St. Louis.

H. C. DALTON.

III.

Views of Doctor George Homan,

Formerly Health Commissioner of St. Louis; formerly Professor of Hygiene in the St. Louis Medical College.

To the Editor Tri-State Medical Journal, St. Louis:—

DEAR SIR:—In answer to your request for my views regarding a new City Hospital, its location, plan of construction, capacity, cost, etc., I beg to quote from my annual report as Health Commissioner for 1894, as follows: "The present site of the City Hospital affords an excellent location for new buildings, with modern appointments, for the care of acute forms of disease and injury, while cases of a more chronic character, and convalescents, could be properly provided for at a more distant location." Also, from the report for 1895, the following:

"The city has far outgrown the present structure as respects floor space, sanitary construction and enlightened requirements. But the site is an excellent one for hospital purposes, special in character, and the recommendation is again made that buildings for an emergency hospital be erected there, with provisions for consumptives, convalescents and chronic cases at a point more removed from city environment."

I have seen no good reason for changing the opinion above expressed, and, entering briefly into details, I would say that a structure comprising a central administration building, with wards arranged on the pavilion plan, with a capacity of 200 beds, would meet the city's emergency needs for many years to come, and could be expanded as required. The patients sent there would embrace all acute cases of illness, injury or disease, of whatever nature, except certain infectious disorders, which necessarily would be otherwise provided for.

The emergency hospital should be supplemented by a larger institution, constructed also on the detached ward or pavilion plan, to which patients would be transferred from the emergency hospital from time to time, or, if able, sent there directly at first.

The method of transfer should be by means of ambulance car, plying from the door of one institution directly to the door of the other, so that no exposure to weather or other undesirable concomitant should attend the change, being under competent medical supervision and skilled nursing all the time.

An admirable location for such an auxiliary establishment is afforded by a tract of ground owned by the city, lying between the present Poor-House and Insane Asylum. The site is high, with an unobstructed view and exposure to the south, and it might be found desirable from one such central plant to economically furnish light, heat and power to the three associated institutions already there.

An initial capacity of say 400 beds should be provided for in detached pavilions, arranged in convenient order, not more than two stories high, amply well-ventilated and lighted, with provisions for adequate heating by means of hot water and open fires—the latter being an important auxiliary to methods employed for the purpose of securing changes of the air with sufficient frequency.

Even with a maximum allowance of air space per capita, it is to be doubted if any ward apartment should contain more than twenty beds as the outside limit, the relative inexpensive method obtaining in pavilion hospital construction (massiveness having no part in such a plan), admitting of spaciousness with economy, as contrasted with the rather palatial style of architecture formerly in vogue.

The ward buildings may be of brick or frame, and should present a substantial and neat appearance. The interior should be plain, but cheer-

ful, and sufficiently attractive; the finish of all walls, floors and ceilings should be hard, non-absorbent, smooth, and easily kept clean.

The cost of the necessary structures for the operation of the two institutions indicated is a problem for the architect and builder, but it is manifest that economies are possible in the plan proposed. The ward buildings or pavilions should be as inexpensive as would be consistent with proper stability and good appearance—the possible necessity for their demolition and removal, arising through infectious permeation, being an essential element of this style of hospital construction; hence large initial outlays, save for the central buildings, and for heating, lighting, etc., are not required.

As special features at the auxiliary institution, ample gardens and pleasure grounds should be provided for the use of patients in the warm season, and solariums and conservatories for colder weather.

Especial attention should be given to that part of the hospital designed for consumptives. Every case of coughing tuberculosis should have a separate room, with deadened partition walls, in order that the quiet of other patients would not be disturbed.

This class of inmates should be segregated from the other portions of the hospital, and the most rigid measures should be taken to prevent the lodgment and secure the destruction of all sputum and other dangerous matters from tuberculous patients. In the determined war on this monstrous malady no detail must be overlooked, and, if necessary, locked hospitals should be the public recourse for persons who persist in scattering the seeds of this disease in public places, conveyances, etc., to the pronounced detriment of the general safety.

GEO. HOMAN, M. D.

IV.

Views of Doctor Waldo Briggs,

Professor of Surgery in the St. Louis College of Physicians and Surgeons.

Dr. James Moores Ball,

3509 Franklin Ave., City.

DEAR DOCTOR:—In answer to your communication regarding the new City Hospital, limited time will only allow a general principle of hospital construction and its locality. The selection of a site for as large a hospital as is necessary, involves many conflicting requirements. Should convenience alone be considered, I should say the most central locality is desirable, and the present temporary site would be well adapted, but there are other things to be considered in this connection which are disadvantageous. Here there is not enough room to adopt the pavilion plan—the plan advocated by the majority of the profession. While the advantage of convenience to the profession in general and students of the various schools should be considered, such convenience should be yielded for the sake of healthfulness.

I should imagine that a situation in the western central portion of the city would be more desirable, for several reasons: There would be less noise and confusion than in the business locality. More ground (a necessity in the pavilion plan) could be secured at less cost. The street car ambulance system could be used. Taking Grand and Laclede avenues as an illustrative point, which could be reached from the extreme southern and northern portions of the city, as the width of the city is not so great that the time occupied in conveying patients from a branch dispensary by an ambulance to the car thence to the City Hospital would be excessive.

In the construction of wards I should advocate the circular system, especially in the acute surgical, for the reason it is less difficult for the attendant and far more convenient for the patient. I believe the water closets should be detachable and entered through an archway. The different buildings should be connected by corridors, and so arranged as to be thrown open during the summer months. An amphitheater having a large skylight, with chloroforming, instrument and consulting rooms, laboratories, etc., connecting. Each building or ward should have isolating rooms.

The administration or executive building should be entirely separate, but connecting with the different wards by means of a system of telephones and bells. All patients should be received in or near the executive building and assigned to the proper division by the officer in charge. Each ward should have attached a private room for the interne. The duties of each interne should be systematically outlined by the superintendent. It would possibly be more convenient to have the kitchen occupy the ground floor of the executive building. The laundry should be in a separate building, connected with the engine or boiler room. The morgue should have tiled flooring, with glazed brick walls, and an amphitheater to seat at least fifty students.

The surgical operating room, for acute surgical cases, should be connected with the acute surgical ward, and cases to be operated upon conveyed by a car, on a track, through the main hall. The room should be made almost entirely of glass, the floor tesselated and of hard material. This room should be brilliantly lighted and supplied with warm filtered water from the engine house. Chloroform, dressing and instrument rooms should be attached.

The superintendent should have absolute control in regulating the duties of every employé connected with the institution. He should also have the power of appointment and removal; the government of all subordinates, including nurses, subject to the Board of Health. It is my opinion that if the work in a City Hospital is to be carried on systematically, the superintendent should have unqualified control, for it is unreasonable to suppose any committee for the control of an institution could be as well versed on hospital necessities as one who gains his knowledge from daily contact with hospital work.

The above, dear doctor, are my ideas, hastily written. We certainly need the new hospital, and such a one as described would answer our purpose.

WALDO BRIGGS.

CLINICAL LECTURE.

VARIOUS FORMS OF NEURITIS,*

By J. J. M. ANGEAR, A. M., M. D., of Chicago,
Professor of Nervous and Mental Diseases and Clinical Medicine in the Illinois Medical College.

NEURITIS is an inflammation of the nerve. Anatomically we have two varieties. We have a simple neuritis, when it attacks simply a nerve and its ramifications. At other times we have what is termed a multiple neuritis, when it attacks various peripheral nerves in the body. Then we may speak of a classification according to the etiology of the subject. You understand that etiology means the cause, and the first cause in this case is traumatism. We have traumatic, toxic, and infectious neuritis.

It would be well for us to take into consideration these as we go. I have named the traumatic first, not simply because it is a traumatic case we have this afternoon, but because it is the most common, and you understand that traumatic means coming from an injury. Injuries may be of various kinds, and one of the commonest forms is that which we have this afternoon, dislocation of the shoulder; I want to emphasize that, for when you go out, and have injury of the joints and of the bones, that you will watch carefully the nerves that you do not have neuritis and not know it. Another very common cause may be from fractures, where one of the smaller branches of a nerve may be involved in the provisional callus, or may be gripped by the adhesions, and that light up neuritis.

Now, as far as other inflammations are concerned, we may speak of them here under the head of traumatic, for they are, more or less, and yet after all some of them would come under the head of toxic. I have reference particularly to rheumatism. Let us bear in mind that rheumatic inflammation involves joints, and the inflammation may throw out an exudation that may involve the nerve and make pressure upon the nerve, and we have an injury of it, not from external violence, but from internal pressure. Then, again, we may have it arising from a malposition of the hand or the arm. Sinkler, in Text-book on Nervous Diseases, edited by Dercum, speaks of a "Saturday night" or a "Sunday morning neuritis." That is, from those old topers who have been out all night, and coming home Sunday morning, after lying around on some bench drunk and half asleep, making pressure upon the arm, they find they have neuritis from the injury to the nerve from that drunken bout. I have been speaking of inflammation, and

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it matters not what the inflammation is. It has a tendency to spread always, and will do so by continuity as well as by contiguity, and a nerve may be involved, because it is in the vicinity of inflammation. Now, again, exposure—individuals that have been exposed to excessive wet and cold, and find the next day that they have neuritis—this is commonly the cause of facial paralysis.

Now, then, among the toxic influences may be mentioned alcohol, producing alcoholic neuritis, which is similar to that of lead poisoning, bringing on the drop wrist, perhaps, in one, but most always in both wrists, and there will be more or less contraction of the fingers at the same time.

Now, then, as to the infectious variety, which may come under the head of toxic, for we have every reason to believe that these microbes secrete or cause to be produced a poison, and that it is not the microbe that does the mischief directly, but it is the poison that is produced by the microbe that does the mischief. If we look at it in that sense, then all the infectious diseases would come under the head of toxic influences. But, nevertheless, we must bear in mind that whenever we have to deal with an infectious disease, scarlet fever, diphtheria, pneumonia, and all that class, we are liable to have derangement of the nervous system arising from the escape of these microbes into the nervous system, producing meningitis commonly, and sometimes neuritis.

Now, then, as far as the pathology of the matter is concerned, I have placed on the board there an outline of a transverse section of a nerve. We have the axis cylinder, in other words, the nerve fibre, and the membrane surrounding it. We have, first, the membrane surrounding the ultimate tubule, which is the neurilemma, then the membrane surrounding the bundle, which is the perineurium. Then we have the epineurium around the whole nerve. The epineurium I have distinctly represented to you as roughly as I possibly can represent it, and we want to bear in mind that it is not a dense membrane, but loose in its structure, and the fibres are passing outward to give attachment to the nerve, and inward to carry the fibres of connective tissue in between the bundles. The perineurium is comparatively a dense membrane, and the fibres passing in between here are the endoneurium. Inflammation may attack the epineurium, and then it is termed perineuritis, analogous to perimetritis and perinephritis. It is this loose structure that is inflamed, which forms the epineurium. Here, then, you ought to understand that this inflammation may come from other portions, or may go to other portions, and is not necessarily attached to the ultimate fibre of the nerve.

Then we have interstitial neuritis, which simply means that the connective tissue which runs in and around the various parts of the nerve that is involved in the inflammation.

Again, we may have it attack the nerve tubules themselves, and then

we have parenchymatous neuritis. This is degenerative in its character, and it is hardly necessary for me to say that this is the most serious form that we meet with.

As far as these inflammations are concerned, there will be an exudation, and, like all inflammations, more or less leucocytes are thrown in there, and while this interstitial inflammation does not necessarily attack the tubules themselves, yet, on account of the exudation thrown out, there may be pressure upon the tubules, and that pressure may destroy them, and we then have degeneration of the nerve tubule as a result of the compression, and the inflammation may be extended to the tubules on account of that pressure.

Degeneration will attack, first, the axis cylinder. It breaks up that axis cylinder into droplets, and if we have an opportunity of seeing that tubule at that particular time, it will look as if it were filled with drops of oil, and perhaps not full at that. Then, again, at intervals it seems to dwindle down next to nothing, and finally the whole thing forms simply a fibrous string, or cord or band. This is the reason why it is called degenerative neuritis. As far as restoration here is concerned, this may be regenerative. There is then such a thing as regeneration in the nerves, which does not exist in any other tissue of the body. Again, at times, this oily, fatty material that I have been speaking of may fill up the normal axis cylinder, and we have what we may term then a fatty degeneration. It is filled up with an abnormal fat, or substance akin to fat and connective tissue.

In speaking of the symptoms, I want to say, again, it is inflammation, and you know full well what inflammation means. If we have an opportunity of seeing that nerve, we shall find that it is reddened; and if it is a superficial nerve, it may be seen as a red streak; and here I want to guard you against being deceived, for when you have these red streaks from inflammation, sometimes it is nothing more or less than inflamed lymphatics, and not a nerve. So, then, every time you see a red streak in the skin you must not jump at the conclusion that you have a case of neuritis, for you may sound the tocsin of alarm unnecessarily. For neuritis is more serious than lymphangitis. The next thing is, it is swollen. Whenever we have swelling of any organ, or part of the body, that is surrounded by a tough membrane, pain is in proportion to the toughness of that membrane. When we have a swelling of the face, or an inflammation beneath the eyelid, we have very little pain. It is a loose flabby tissue, and wherever you get that, you have very little pain, but just as soon as you come to some of the glandular structure, especially those glands that are surrounded by a tough membrane, then you have intense pain. You only have pain in a kidney when that kidney is swollen, and there is pressure upon the membrane. There is nothing more excruciating than inflammation of the eyeball, on account

of the tough sclerotic coat. Then, again, we have excruciating pain in orchitis, because of that organ being surrounded by such a tough and dense membrane. Now we carry this principle into the nerve, and recognize the fact that we have a membrane surrounding each one of those tubules that is more or less tough. We have a dense membrane surrounding the bundles, and we have comparatively dense membranes surrounding the whole, and when we understand that the nervous system is supplied with a larger amount of blood than any other tissue of the body, and that in all cases of acute inflammation we have congestion, exudation and swelling, then, as a matter of course, we must have pressure upon these nerve tubules in proportion to the hyperæmia, and the exudation that may be poured into these membranes, or into the nerve. Hence, then, we have intense pain. We wish to call your attention to the fact that we have a little fever in connection with this, and sometimes it is quite severe. As far as neuralgia is concerned, we may have just as much pain, but we have no rise of temperature and no evidence of organic disease, but here there is a tenderness along the whole line of the nerve. If it happens to be the sciatic, the individual will point to it with the finger, and he will point to it cautiously, afraid that he is going to make a little pressure. If it is in the circumflex, the pain will be in the deltoid, and in the vicinity of the joint. If it is in the median nerve, running down here, it will affect the thumb and the first finger, and the inside of this one (pointing to the ring finger.) If it is the ulnar nerve, the pain will be felt in the little finger and the outside of the ring finger. If it is in the arm, on the outside, it is the musculo-spiral. I do not wish to go into the anatomy too far, but just far enough to show that it is as essential to the study of neurology as it is to the study of surgery that you should be able to tell all about the position and direction of the nerves.

The pain is said to be of a sharp burning character, but I don't know that we can depend so much upon the kind of pain as the other circumstances that we were just speaking of. Some authors tell us that we have it more intensified in multiple neuritis. I pay very little attention to the kinds of pain, but to the locality and the surroundings, and that in neuralgia we do not have any increase of temperature, and there will be no evidence whatever of organic lesions. That, of course, would come in under the head of diagnosis, but comes in here so *apropos* that I am tempted to jump over the boundary line. Now, this pain is of such character as to prevent the patient sleeping. You need not imagine for a moment that when this patient goes to bed and gets warm—I was going to say, and comfortable—that he will go to sleep, which he cannot do on account of the severity of the pain. Sooner or later the trophic nerve will be affected. That is the nerve, or nerve influence that controls nutrition, and the result will be that the limb will commence to atrophy. The next thing, if it is

in the fingers, you will notice that the subcutaneous tissue, that is to be found in the fingers, and in some portions of the feet, perhaps, more than any other part, will be entirely destroyed and absorbed, and the fingers will become apparently, not in reality, but they will appear to have elongated, and they will appear to be, and will, in fact, be more tapering, because at the tip we have more of that fatty subcutaneous tissue than we have back farther, and if it is gone, it is going to leave a tapering finger, and much smaller. The skin itself will appear to be drawn tightly over the limb, and will become shiny, and that is the kind of a case we have here with us this afternoon. It is so plain that a blind man can feel it with his stick. (Indicating on patient.) Just so the tapering fingers here; and I know of nothing in the whole realm of nervous diseases that will produce this condition but neuritis. And then see the shiny condition. It looks as though the fingers were made of ivory, and had been polished. Then, again, you will note that they are redder; there is increased color of the skin. This neuritis has been caused by dislocation of her right shoulder, and just bear in mind that this is the most fruitful cause of neuritis in the upper extremity, and I presume there was a time when redness could have been seen up there, but, (pointing to the shoulder), there was no redness when I examined it. I am very anxious that you should see this, because it is one of the most marked cases you can ever expect to see, with the tapering condition of the finger, the shiny condition of the skin, and the apparent elongation of the fingers.

Now, at times, there is an increased secretion of the sweat-glands in the section, and that sweating or perspiration that comes from the limb suffering from neuritis has a fearful odor—like taking off the dressing of some old wound that had not been properly cared for. While that is not here now to any extent, I understand that it has been present. Now, that does not exist always, mind, but it does in many cases.

From what I have said, I think it will go without saying that there will be difficulty in moving the ends of the fingers; that there will be more or less paralysis or stiffening, or whatever you choose to term it. That will be present.

I think that is about all for the symptoms; and now, then, for the diagnosis, though I have said about all that there is to be said of the diagnosis in speaking of the pathology and the symptoms, and still I want to emphasize it under this head. Pain is a very common thing, but when you have a fracture and are satisfied you have reduced that fracture, that pain ought to be bearable, and should be next to nothing. When you have a fracture or dislocation, when you have reduced it and put it in good normal condition, and there is still intense pain, remember what I am saying this afternoon—give good attention to the nerves involved.

I did think I could bring down a gentleman this afternoon who had

been a patient of mine nearly two years ago, with a hand almost a mate to this one, but it arose from rheumatism of the wrist joint, and it was treated by one of our best doctors of the city of Chicago, who did not recognize the neuritis. Here are three common things that you will meet with very frequently in your practice: When you have (*a*) a dislocation or a fracture, and you have reduced this, and still the pain is unaccountable, look well to the nerves. Whenever you have (*b*) rheumatism, and the pain becomes sharp and of a burning character, and the fingers begin to assume something of that form, look to the nerves; and when you know that you have (*c*) an old toper to deal with, and the patient has got a drop wrist, then look to the nerves, and you may then have to decide between alcohol and lead.

If the patient is complaining of the thumb and first and second fingers, it is the median nerve; then when the principal pain is running down the ulnar side to the little finger, then it is the ulnar; and when it is confined to the deltoid, or in the vicinity of the shoulder joint, the circumflex; and when it is in the external portion of the arm and back of the hand, then it is the musculo-spiral nerve.

The prognosis of simple neuritis is said, in a general way, to be good, but not in the multiple neuritis, though I am not talking about multiple to-day. Now, when it arises from some idiopathic cause, or something that is not of a traumatic nature, then we may expect that it will get well in a comparatively short time if the cause is readily removed; but when it arises from rheumatism, it will depend more or less upon the removal of the rheumatic difficulty. When it arises from alcohol, it will depend largely upon the time that it takes to get the alcohol out of the system, and the amount of general damage that it has already done. When we come to traumatism then we have to be more guarded, and we have to watch the effects of the traumatic difficulty. If the inflammation arising from the traumatism is early and rigidly subdued, then the nerve will get well; but if the damage is carried to the nerve and the surrounding tissues, and it has brought on anything in the shape of degeneration, then we have to wait until there is regeneration of the nerve, and if that takes place, well and good. Now, then, you must be guarded in making your prognosis, and the more guarded you are the better it will be for your reputation. If the patient gets well a little sooner than he expected, why, then, you are the doctor; but if you build up their expectations that it is going to get well in a very little while, and it takes two or three years, why, then, you are not the doctor. That is all there is about that.

Now, then, for treatment. To begin with, in the line of treatment, as I said just now, a great many things, I should think, would go without being mentioned. In all cases of inflammation nature herself demands rest, and that is what the pain is put there for. That pain is not there for

a torment. It is put there for the purpose of compelling that patient to treat that thing decently and respectfully, namely, rest. I want to emphasize that rest. Now, that is not simply in neuritis, but it is everywhere wherever you have inflammation. When you have a dislocation, it is rest. When you have a fracture, it is rest. When you have inflammation of the eye, it is rest. When you have inflammation of the joint, it is rest. Now, it seems as if that might go without saying, and because it seems unessential, the speaking of it, it seems to me that I ought to speak of it the more, because if you remember that it will be no credit to you, not a bit; but if you don't, it will be an awful disgrace. Let us imagine for a moment that I have a cut that has been neglected, right there on the muscular portion of my arm, and I have inflammation, and it is swollen, and a great deal of pain. Besides rest, you will say go to work and reduce that inflammation. If it is early—say I cut it yesterday—and now it begins to be red and inflamed, hot and painful, you may say put on a cold water compress and keep it on so as to keep down the temperature, and the temperature itself does a large amount of harm. High temperature, bear in mind, destroys cell-life everywhere. If your fever is running way up to 104° and 105°, just bear in mind that is destruction to the cells of that body, and it must be reduced, or there will be trouble through the excessive temperature. So here, if you have just commenced, and it is beginning to dawn upon you that perhaps you have neuritis, don't hesitate to put on a cold compress. Now, you will say you would not keep that up all the time. In this particular case, if suppuration had commenced, we should say put on your hot water, put on your poultices and things of that character, so as to keep up the circulation of that congested portion of the body. So, then, the time will come when, perhaps, it will be well for you to put that limb up in cotton, the same as we do the thorax in cases of pneumonia, and do not hesitate to put on a large amount of the cotton on that arm, and keep it warm and comfortable; but, mind you, keep it quiet. Give it rest all this time. Now, then, we can imagine that while we are attending to it in that kind of a way, the time will come when we want and must use a certain amount of exercise, the reverse of what we have been saying. But it won't do to keep your patient in bed to-day and keeping that patient as quiet as you possibly can, and then have that patient get up to-morrow and go out in the woods and swing an ax. That patient, when commencing exercise, must take very slight and very gentle exercise, just that amount that can be sustained without provoking pain. That is the best criterion that I know of. If the patient can lift the hand up so high (indicating) without any pain, then let that patient lift it so high, but no higher. Perhaps next week it can be lifted that high (indicating). Then let it be there in that way. Now, then, with reference to these fingers (bending them passively), if that is all that can be done without pain, why let that be the measure of

the contractions: but to take them violently, and bend them, will do a damage. I think that I may be leading some of you astray somewhat. You may think that I am saying that there is never a time when it becomes necessary to make forcible bending. There is such a thing as an ankylosis that must be broken up; but that is of an old standing; it is not a recent case. This particular exercise I am speaking of to-day must be gentle, and persistent and continuous. Now, as far as that shoulder is concerned, we would suggest that the patient bring the hand to the point that can be done without severe pain, and, mark it, and to-morrow aim to raise it up just a little bit above it, and if he cannot go enough above the old mark to make a new one, let it go. In the course of two or three weeks, or a month, that arm may be raised way up here (indicating) perhaps, and we have done well, but to take that arm to begin with, and force it up here, that is bad practice, and will not do. You must not do it. And now, if it is the fingers, they can be bent in here in the same way passively, to a certain extent, every day, until by and by there can be a certain degree of voluntary motion. Bear in mind that voluntary motion is always better than passive motion, because it is calling forth nerve influence to do it, and I want to emphasize the fact that the measure of pain in that effort will be the extent of practice that will do good or do mischief.

Now I have said nothing whatever with reference to general treatment, and again it seems to me that common sense would tell us that all this pain and suffering is debilitating, and it is worse than hard work. The patient wants to live well; none of your light housekeeping for this patient, but a good piece of beefsteak. I am John Bull enough for that, and, of course, we all are. Have a good piece of meat, good bread and milk, good cheese. We must study the digestive powers of the patient. If the patient's appetite is not good, you know how and what will make it good. Probably we can do no better than to give some of the vegetable tinctures: gentian, quassia and cinchona, and I have no objection to a few doses of quinine, as the case may be. If there is an exudation and thickening of the parts, we have nothing better than the iodides. The older writers and teachers gave mercury, and they always insisted upon it that it prevented thickening.

I have said nothing about electricity. As far as it is concerned, bear in mind that if you have the evidence of degeneration, you must have the galvanic current and not the faradic. You want just enough of the galvanic current to contract those muscles, and if it is not the contraction of the muscles that you want, it will not be proper for you to use it in the acute stage. You must wait until the acute effects have passed away. Then use from three to five milli-amperes about three times a week, and about ten minutes at a seance, and by and by, as you see the patient is improving, you can use more, and you may use the faradic current just as soon as it will produce a response, but it is of no use before that time.

LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION.

By G. FRANK LYDSTON, M. D., of Chicago,
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[CONTINUED FROM JUNE ISSUE.]

GENTLEMEN:—To-day we will continue the subject of masturbation. *The assertion may be safely made, that every man who has ever masturbated to any extent has forever lost, to a greater or less degree, his capacity for sexual enjoyment, and the same is true of women.* Much of matrimonial unhappiness is due to this fact, and the divorce court speaks volumes in evidence of it. Failing to secure the anticipated pleasure, and not recognizing the source of the fault, the individual is apt to stray into forbidden paths in quest of that which, like the *ignis fatuus* ever eludes the grasp. An eminent physician recently said, "that many men owe their sexual incapacity to their early practices, and if every boy could have it impressed upon him that he is destined to lose untold pleasures in the future by his unnatural vice, these ills to a large degree would be obviated." Too much praise can hardly by accorded this gentleman for his outspoken position in this matter. This subject is of far greater importance than the other evils of masturbation, because of its constancy of occurrence, and because of the relative rarity of organic diseases as a consequence of the vice.

The importance of insanity and imbecility in their relations to masturbation is greatly exaggerated, and authorities are divided as to the causal relation of the vice to mental disease. Very often, I believe, the physician confounds the *propter* with the *post;* indeed, it is probable that no healthy boy is ever made insane by masturbation alone. Given, however, a feeble frame, unstable cerebral equilibrium, structural disease of the brain, faulty environment, or hereditary predisposition; masturbation may prove a powerful element in the determination of insanity and imbecility. Masturbation, as produced by actual brain disease, such as is seen in senile dementia in some cases, and often associated with other forms of sexual perversion, does not concern us at this juncture. Phthisis, epilepsy, cardiac disease, hypochondria, nymphomania, satyriasis, etc., are the principal remaining disturbances alleged to be produced by masturbation. I hold very much the same position regarding them as expressed in relation to insanity, with the exception of functional cardiac disturbance and hypochondria. *These conditions may result from any cause which produced a morbid impression upon the mind and nervous system, and are, therefore, frequent results of masturbation.*

With the premise that some peculiarity of physical structure, hereditary or acquired, exists as a predisposing cause for the subsequent derangement

of the mental faculties, it must be admitted that masturbation is an occasional cause of insanity. The intimate relation which exists between the sexual function and the functions of the nervous system, particularly of the cerebellum, is in itself sufficient to suggest the possibility of insanity arising from abuse of the sexual powers, under physical circumstances favoring mental derangement.

From *a priori* considerations, involving the immediate effects of sexual excitement and indulgence upon the brain and spinal cord, we might naturally expect insanity to be a frequent result of masturbation and excessive sexual intercourse. It is to be remembered, however, in this connection, that there is a special provision of nature for the restoration of the exhausted nervous force after sexual indulgence. It is this conservatism on the part of nature which protects the majority of individuals who abuse their sexual apparatus from immediate and serious results, involving the functions of the cerebro-spinal axis. Even in the young and growing child, and in the youth at the period of puberty, the vital powers are so active, and the circumstances promoting tissue building and repair of nervous waste are so favorable, that the nervous structures are protected for a long period of time. Between the acts of sexual indiscretion there is a rapid building up, which prevents immediately serious results. When the abuse of the sexual function is discontinued, whether such abuse consists in masturbation or over-indulgence in sexual intercourse, recuperation is extraordinarily rapid. No matter how seriously disturbed the functions of the cerebro-spinal axis may appear to be primarily, the restoration of function and power usually speedily occurs when the cause of excitation and irritability has been removed, actual structural change in the nervous system being certainly very rare in these cases. When, on the other hand, there exists a condition of unstable nervous equilibrium incidental to faulty and imperfect nervous structure, whether due to heredity, congenital defect, or acquired disease, the conditions are entirely different. Under these circumstances, actual structural alteration involving the nerve fibres and cells, and vascular supply of the brain, with coincidental psychopathic phenomena, are naturally to be expected as occasional results of the severe and repeated shocks to the susceptible nervous system produced by the sexual orgasm. The immediate effect of sexual desire upon the brain—even in individuals who are considered to be perfectly sound from both a physical and mental standpoint—is sometimes very marked. In certain individuals, in whom the amorous propensity is very pronounced, the reason, will, and, indeed, all of the higher faculties of the mind, are inhibited for the time being under the influence of sexual passion, leaving the individual to be swayed entirely by his animal-like sexual impulses. While in this condition of sexual furor, the most extravagant and unreasonable acts of immorality and crime are often committed by individuals, who, in their sober senses, would

abhor the same exhibitions of viciousness on the part of others. It is safe to assume that very few individuals of a passionate disposition could be said to be perfectly sound when under the influence of powerful sexual desire. If, then, the sexual passion is capable of obtunding the moral sensibility, reason, and judgment of individuals, who are structurally sound, what might naturally be expected in persons of a primarily feeble intellect and faulty nervous structure? There seems to exist in some cases, in which the intellect is comparatively feeble, a surprising degree of sexuality. As expressed by Deslandes, "the generative sensibility is augmented in proportion as the intellect becomes enfeebled."

It is unfortunate that those who have had the best opportunity for observation of masturbatory lunatics have not made a more careful study, not of the relation of masturbation to the deplorable mental condition of their patients, but of the relation of hereditary and acquired predisposing causes, not only to the acquirement of the habit, but to its results upon the brain.

Some very eminent writers have exhibited a tendency to exaggerate the important relation of masturbation to insanity. Esquirol has made much of the habit as the primary cause of mental maladies. Dr. Ritchie, as quoted by Acton, states: "As might be expected, these cases would chiefly occur in members of families of strict religious education. Experience supports this expectation; and facts also show that those who from this cause become insane have generally, to all appearance, been of strictly moral life, and recognized as persons who paid much attention to the forms of religion. As will be afterwards more fully stated, it is frequently observed, especially in the acute attack resulting from this cause, that religion forms a noted subject of conversation or delusion."

This opinion, as far as it goes, is really in substantiation of what I have already said regarding the necessity of some primary predisposing condition in the majority of cases of so-called masturbatory insanity. It is hardly conceivable that religion *per se* is ever a cause of mental disease; that prolonged fasting and other exercises of a religious character, in combination with the various conflicting emotions to which religious ceremonies are apt to give rise, will produce, in certain individuals of primarily feeble nervous structure and unstable nervous equilibrium, mental derangement, goes without the saying. That, however, these circumstances could be potential in producing psychopathic phenomena in individuals of a sound constitution and stable nervous equilibrium, is highly questionable.

It can hardly be said that the masturbatory lunatic presents a characteristic form of psychopathia. Such patients, however, are liable in some instances to transitory maniacal excitement, alternating with periods of depression and melancholic delusion. In many cases there is a tendency to monomania of a religious cast. In occasional cases the melancholia terminates in attempts at suicide or self-mutilation.

[TO BE CONTINUED.]

ORIGINAL ARTICLES.

VACCINATION FROM A GENERAL PRACTITIONER'S STANDPOINT.*

By ELSWORTH SMITH, JR., M. D., of St. Louis.
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Mr. President and Gentlemen:—

IT is the general practitioner, especially, who is entrusted with the important charge of placing within the reach of the people the great boon conferred on his fellow-men by the one whose name we honor to-night. And ill-deserving is that general practitioner of the title of doctor of medicine who does not appreciate, to the fullest extent, the responsibilities of such a trust, which, if not intelligently and conscientiously administered, would mean the exposure of the community to what Macaulay has called "The most terrible of all ministers of death,"—a title well earned, when we glance at the history of small-pox before the great discovery of Jenner. It is estimated, for instance, that in the century preceding the introduction of vaccination, fifty millions succumbed to the disease. And to this great fatality should moreover be added the deformity and especially the loss of sight suffered by many of those who escaped death. In Europe alone, during the same century, the disease claimed annually four thousand victims. And yet those were but the ravages of one century. As far back as history goes the dread malady has flourished, and always with fearful mortality. Thus was the human family at the mercy of one of its most terrible of foes, when, in 1798, Edward Jenner, the young and obscure student of Gloucester, announced to the world his simple but grand discovery—vaccination. Wherever adopted, the disease small-pox disappeared as if by magic. The mortality dropped from thirty-five per cent. to six per cent., and epidemics of the disease became almost a thing of the past. Such is, briefly, the story of vaccination, and one would think, after hearing it, that the general practitioner would never encounter the least opposition in offering to the people such a blessing, and yet there are those who through ignorance or prejudice actually oppose vaccination. Failing to appreciate its many advantages, they urge only some of its alleged dangers, prominently among which are placed transmission of such diseases as tuberculosis and syphilis and the occurrence of erysipelas. Such individuals, fortunately greatly in the minority, are to be handled, in the absence of compulsory legislation, by demonstrating to them the good

*Read before the City Hospital Medical Society, on occasion of the celebration of the anniversary of the discovery of vaccination by Edward Jenner.

effects of vaccination and showing them that the alleged dangers have little or no foundation.

Tuberculosis, though perhaps possible, never has yet been transmitted through vaccination. The occurrence of either erysipelas or syphilis can nearly always be avoided; the former by cleanliness and avoidance of operating in the presence of erysipelatous contagion, unless absolutely necessary. The latter, syphilis, may be prevented, first, by use of animal virus, as lues is essentially a human disease; second, when human virus is used, it should be obtained only from healthy children with a good family history and not younger than six months, the limit of tardy hereditary syphilis.

The anti-vaccinationists have perhaps just recently suffered their most signal defeat, for in it are involved some of the most prominent leaders of the heresy in England, who, strange to relate, have for a long time had their headquarters in Gloucester, the old home of Jenner. So alarming has the small-pox epidemic in this place become as to cause the April grand jury to demand the enforcement of the vaccination law by the national government, taking the matter entirely out of the hands of the local officials, and accordingly a medical inspector has been sent to organize, as far as is now practicable, a system of public vaccination. The local authorities themselves becoming frightened at the disaster their fault has engendered, have issued public notices urging vaccination and re-vaccination, and have actually decided to attempt to undo the mischief of past years by passing a resolution to enforce the compulsory clauses of the vaccination acts. The "London Times" says "that the very leader of the Gloucester anti-vaccinationists has consented to the operation against his convictions, but for the public good." A most commendable display of disinterestedness under the circumstances. The statistics of this epidemic, as submitted by the health officer, Dr. F. T. Boyd, are most interesting, and of themselves should be all-sufficient to stifle forever the enemies of Jenner's doctrine.

From June last to March 27th there were admitted to the Small-pox Hospital, in the city of Gloucester, 365 cases, as follows:

Not vaccinated,	207	Percentage of mortality	33.08
Vaccinated only in infancy (chiefly adults)	158	Percentage of mortality	7.
Re-vaccinated (14 years ago)	1		

Of the seventy fatal cases among the unvaccinated, all but three were children under ten years of age; two of these three were eleven and fourteen years respectively, and one, twenty-one years; not a single death is reported in a vaccinated person under twenty-four years of age.

The ages of the 158 vaccinated were as follows:

Under 10 years	2	
Under 20 years	42	
Under 30 years	50	
Under 40 years	35	
Forty years and over	29	
		158
Of those unvaccinated, under 10 years	179	
Of those unvaccinated, under 20 years	14	
Of those unvaccinated, under 30 years	9	
Of those unvaccinated, under 40 years	1	
Of those unvaccinated, 40 years and over	4	
		207

Thus we see beautifully exemplified the law that vaccination affords almost perfect immunity during the first ten years of life, after which it gradually loses its effect, though it still affords some protection throughout life, just as an attack of small-pox does.

In the majority of those unvaccinated the disease was so severe as to cause marked disfigurement, and in many cases blindness; while those vaccinated had the disease so lightly that they will not be disfigured at all, notwithstanding they were mostly adults, and had not been vaccinated since infancy, and among whom there were many who possessed very poor vaccination scars. Only one case of re-vaccination, and that fourteen years ago, was admitted to the hospital.

Not one of the medical men, nurses or attendants, all of whom had been re-vaccinated, took the disease. Among those admitted to the hospital many are still critically ill, and there are many cases in the city and suburbs which cannot be accommodated at this institution, and which are not, therefore, included in these statistics, so that the above is but the record of the ravages of the disease, to date, among those admitted to the Gloucester Hospital.

Many instances were observed of those in the same family taking the disease who were not vaccinated, while others vaccinated escaped. Thus, therefore, the doctor should insist on the vaccination of every one in need of it coming under his care; but he should do more than this: he should be certain that each vaccination be an efficient one. To which end he should not dismiss the case after simply inserting the virus, but should observe accurately the evolution of the lesion, so as to be certain the take is typical and not spurious, as the former only is protective.

Without going into details of the performance of the operation, I should like to call attention to the following table, given by Marson, of the percentage of mortality in five thousand cases:

Classification of patients affected with small-pox.	Number of deaths in each class respectively.
1st. Unvaccinated	35. %
2d. Stated to have been vaccinated, but having no cicatrices	23.57 "
3d. Vaccinated, one cicatrix	7.73 "
Vaccinated, two cicatrices	4.70 "
Vaccinated, three cicatrices	1.95 "
Vaccinated, four or more cicatrices	.55 "
A. Having well marked cicatrices	2.52 "
B. Having badly marked cicatrices	8.82 "
4th. Having previously had small-pox	19. "

These statistics are confirmed by experience at Small-pox Hospitals of Asylums Board in a series of 11,724 cases. To produce, then, at least four perfect vesicles and cicatrices, it would seem, should be the aim of every vaccinator.

It should also be remembered that there is no such a thing as insusceptibility to primary vaccination, and that, therefore, the operation should be repeated until a result is obtained. (Seaton never saw it in more than nine thousand cases at Blackfriars National Vaccine Institution.)

As to choice of lymph, animal is now much preferred to human, for reasons alluded to heretofore, and that stored in the liquid form, in hermetically sealed tubes, has seemed to me more reliable than that dried on ivory points.

Though Jenner thought that one vaccination conferred immunity for life, subsequent experience has shown that an individual is protected only for a period of about ten years by each vaccination, and that, therefore, the operation should be repeated at about this interval of time, and while there never has been a case of true variola reported within six years of an efficient vaccination, still it is a safer rule to vaccinate every one exposed to the contagion of small-pox, irrespective of the age of their vaccination cicatrices.

Not only has Jenner's discovery almost entirely eradicated the variolous disease, but it has also modified and curbed the intensity of the affection, so that the majority of cases now occurring from time to time are mild in character, rarely followed by deformity or death. Cases of true variola become rarer and rarer every year.

Just here, however, the practitioner is faced with a very serious problem. This affection, thus modified by vaccination, or varioloid, as it is called, being robbed of the typical features of true variola, becomes thereby difficult to distinguish from other eruptive diseases, especially measles and varicella.

And yet it is of the greatest import that such distinction should be accurately made, for varioloid, though benign in itself, is capable of communicating variola in its most malignant form.

Osler tells us that the terrible epidemic of 1885, in Montreal, in which 3,164 persons died within nine months, has been attributed to the mistaking of a case of varioloid for varicella, and admitting the same to the large City Hospital. On the other hand, cases of measles and varicella have been considered as varioloid and sent to a small-pox hospital, and thereby needlessly exposed to contagion.

The following points may be found of assistance in making this all-important differential diagnosis between the above mentioned affections. It is in the prevesicular stage that varioloid resembles measles. In the former disease, however, the papules are small, round and hard, having the

characteristic shot-like feel. The eruption appears first on the face borders of the scalp and almost simultaneously on the wrists; the temperature falls with the appearance of eruption. The stage of invasion is often severe, with hard chill, intense headache, backache, nausea and vomiting. In measles, on the other hand, the onset is generally much milder, without any decided chill or severe headache; the temperature does not usually rise quite so high, nor does it fall with the appearance of eruption, but rather increases, and begins to decline only when the eruption begins to fade. The papules are softer and have not the shot-like feel, nor are they seen on the wrists as soon after the appearance of the eruption on the face.

The catarrhal symptoms are usually more marked at the start, though they may not persist so long.

But still more difficult perhaps is it to distinguish between varioloid in the vesicular stage and varicella. In deciding between the two, it should be remembered that in chicken-pox the prodromal stage is slight, the rash appears upon different parts of the body, is superficial and vesicular without umbilication and appears in successive crops. Constitutional disturbance slight or absent; rarely attacks adults.

Varioloid, on the contrary, is a disease of adult life, has nearly always a well-marked stage of invasion of at least two days' duration, in which the temperature is often as high as in true variola. The eruption is papular for from twelve to twenty-four hours before becoming vesicular, not first vesicular, as in chicken-pox. The majority of the vesicles become pustular and are umbilicated. The constitutional disturbance is more marked.

Another subject of daily interest to the general practitioner, and one which he may at any moment be called upon to decide, is the presence of vaccino-syphilis. A very valuable table of the differential points between vaccinal ulcers and vaccino-syphilis, and between vaccinal eruptions and the secondary syphilitic lesions, is the following, arranged by Fournier:

Vaccino-Syphilis.	Vaccination Ulcers.
Chancre developed usually one or two only of vaccinal punctures. Inflammation is slight.	Ulceration affects all the punctures. Inflammation and ulceration is severe.
Loss of substance superficial only.	Ulcers deeply excavated.
Suppuration only scanty or absent. Scabs or crusts form. Border of chancre smooth, slightly elevated, gradually merging into floor.	Much suppuration.
	Floor of ulcer uneven.
	Suppurating.
Induration parchment-like and specific, not merely inflammatory.	Induration inflammatory alone.
Inflammatory areola slight.	Areola inflammatory and erysipelatous in character.
Glands swelling constantly.	Gland swelling often absent; if present, merely inflammatory.
Indolent. (Syphilitic bubo.)	Complications:—Sloughing erysipelas, etc., often present.
Complications rare.	Ulceration present twelve to fifteen days after vaccination, and is fully developed by twentieth day after vaccination.
Chancre never developed before fifteenth day after vaccination, usually not until three to five weeks, still in its earlier stage twenty days after vaccination.	Secondary Syphilis eruption due to true vaccino-syphilis.

Appears at earliest nine or ten weeks after vaccination.
Requires in every case pre-existence of a specific ulcer (chancre) at sight of vaccination.
Exhibits the character of a true specific eruption.
Fever often slight.
Lasts for a long time.
Usually accompanied by specific appearances on mucous membranes.

VACCINO-SYPHILIS.

Begins with a local infection, chancre and indolent bubo.

VACCINATION RASHES.

Including roseola vaccinalis, miliaria vaccinalis, vaccinia bullosa, vaccinia hæmorrhagica, also accidental eruptions, as rubeola, scarlatina, lichen, urticaria, etc.
A true vaccination rash appears between nine to fifteen days after vaccination.
Absence of inoculation chancre.
Eruption does not have specific characters.
Fever always present.
Evanescent.

HEREDITARY SYPHILIS.

Showing itself about the time of vaccination.
No chancre begins with general phenomena.
Typical development in four stages; incubation, chancre, second incubation, generalization, (secondary eruptions, etc.)
Never appears earlier than the ninth or tenth week after vaccination.
Has no typical development in connection with vaccination.
Time of development quite independent of vaccination. Is attended by the characteristic syphilitic bodily aspect.
Other manifestations of hereditary syphilis may be present.
The history may indicate syphilis.

The foregoing are but a few of the more important questions that come to the mind of the general practitioner in considering the interesting subject of vaccination. In insisting upon efficient and thorough vaccination of the community in which he moves, he will not only be discharging a very important and sacred duty, but will also be honoring one of the greatest names that adorns the history of medicine.

ORGANIC OR SYNTHETICAL SALICYLATES IN RHEUMATISM.

By GEORGE HOWARD THOMPSON, M. D., of St. Louis,
Professor of Materia Medica in the St. Louis College Physicians and Surgeons, Member St. Louis Academy of Medical and Surgical Sciences.

IN discussing the subject of rheumatism it is not necessary to go into elaborate detail concerning its etiology and symptomatology. The present state of our hypothetical knowledge of its nature is fairly well understood by the mass of the profession.

Suffice it to say that it is a constitutional disease, characterized by fever, inflammation involving the joints, and a strong tendency to cardiac inflammation. The blood contains lactic acid in excess, which is supposed to account for the attack. The most frequent predisposing cause is heredity; the exciting causes, exposure to cold, scarlet fever, influenza, etc. One attack predisposes to another.

The true cause of rheumatism not being definitely known, our efforts at

treatment are of necessity more or less empirical. The materia medica has been exhausted in the efforts of medical science successfully to combat this disease. Some few agents have occasionally been used with great benefit, but are found to be unreliable in the majority of cases. Examples of these are cimicifuga and potassium iodide. Quinine, this household cure-all, is occasionally very useful, but is generally little more than a mere supporting agent. The coal tar group of antipyretics have given much general satisfaction, ranking next to the chief and foremost of all remedies in this condition —the salicylates. The old standby alkaline treatment probably gives better ultimate results than any other single line, but it does not materially shorten an attack, nor palliate the symptoms. The salicylates undoubtedly lower the fever, ease the pain and reduce the inflammation better than any other class of remedies. Still there is a choice to be made even among them. Salicin and its modifications, salicylic acid, salicylate of sodium or lithium, are the agents most frequently employed, though the advocates of salol claim for it an efficacy superior to all of the others. Though these agents give more general satisfaction than any other class of drugs, still they are frequently found wanting, even in large and frequently repeated doses, in exerting any influence whatever upon the disease. In such cases the judicious combination of acetanilid will generaly be found useful. My proportion has been sodium salicylate gr. xx. to xxx.; acetanilid gr. v., administered every three or four hours; but an occasional cyanosis with heart depression has warned me against pushing acetanilid in future cases. Where the exhibition of salicylates in proper doses produces no beneficial result in two or three days, it is well to look into the origin of the medicine. That derived from carbolic acid and CO_2 is vastly inferior to the organic derivatives from the willow or birch. When it has been determined that salicylate, in spite of being an organic one, has been unavailing, it is best to drop it and begin at once with the oil of wintergreen, which is nearly ninety per cent. methyl salicylate, and probably the most potent therapeutically of all the salicylates, synthetical or organic. In my experience, which, however, has not been vast, wherever I have substituted a salicylate with the oil of wintergreen I have had prompt benefit result to the patient. To better illustrate I might detail a few cases:

I. In June, 1894, Mrs. B. had a well-defined case of acute inflammatory rheumatism involving chiefly the joints of the knees and ankles, with great pain, redness, swelling and a temperature of 104°. At this time I was in the habit of using the salicylate of sodium, which I prescribed and which patient took for three days to no purpose. Acetanilid was later given in conjunction, with no further effect than to reduce the fever. My stock of salicylate of sodium being exhausted, I left with the patient some oil of wintergreen, to take in ten drop doses every two hours until my return with the salicylate. On my return the next day I was astonished to find

the patient out of bed, without pain or fever, and the inflammation very much reduced. The oil of wintergreen was continued alone, and two days later the patient was without rheumatic symptoms. No relapse followed in this case, due probably to the fact that she followed the hygienic directions regarding diet, clothing, etc., including the drinking of water three times a day containing one dram of sodium phosphate.

II. Mr. D. sent for me in July, 1894. He was over 70 years of age, and presented a plain case of acute inflammatory rheumatism, involving the right arm and shoulder. He had previously taken piperazine in daily quantities of gr. xv. in water, to no purpose. I at once prescribed salicylate of sodium gr. xv. and acetanilid gr. v., repeated every four hours. This slightly relieved the symptoms, but no great amount of improvement took place—on the other hand, on the seventh day cyanosis with cardiac depression took place and assumed alarming proportions. The acetanilid was at once discontinued and oil of wintergreen substituted for the salicylate. The pain and inflammation commenced to subside with the third dose of ten drops every two hours, and on August 6th the patient was discharged. No cardiac lesion was apparent at any time.

III. Mr. S., a horseman, had inflammatory rheumatism of the left elbow and right ankle. I was called on May 12, 1895. Recollecting my past experience with the salicylates I determined to waste no time, but prescribed at once oil of wintergeen in doses of fifteen drops every two hours, with immediate relief of all the symptoms. Twenty per cent. ichthyol in lanoline was applied twice a day to the joints. Patient thought himself cured and neglected his hygienic directions, thereby suffering a relapse on June 6th. The same treatment was immediately reinstituted with the same success, and three days later he was practically without symptoms. I then put him on carbonate of lithium, gr. v. every four hours for a month, and so far as I know he has had no further relapse. As patient likes his beer and will indulge moderately, though habitually, no prognosis can be made.

None of these cases were troubled with organic heart complications, though all had had previous attacks. In fact case III. had previously been bedridden for eight months with rheumatism, if his statement can be believed. These cases, coming as they did in succession, have impressed me with the vast superiority of organic methyl salicylate, as found naturally in the oil of wintergreen, over all other forms of even organic salicin. The fact that relapses occur if treatment is discontinued too soon, only indicates that the same acute attack of the disease recurs before complete cure has taken place, and simply emphasizes the necessity of carrying out the old alkaline treatment conscientiously until the lactic acid in the blood is completely neutralized—at present the only scientific plan of treatment.

THE DUTIES OF THE MEDICAL PROFESSION TO PUBLIC HEALTH,*

By W. F. MITCHELL, M. D., of Lancaster, Mo.,

IT is not my purpose in this paper to discuss any class of disease which requires the attention of the physician, or discuss the causes of disease, or to refer to any of the late discoveries made by the late methods of investigation. My purpose to-day is to remind you of some of the duties incumbent upon every intelligent regular physician in regard to prevention of disease. In the ancient times disease was ascribed to an angry God. In order to appease His wrath it was necessary to appeal to Him by prayer and supplication to stay His hand. They were willing to admit they had sinned, and now were willing to repent. After a season of distress, sickness, and frequently death, their prayers were answered. To their minds the Lord had shown them mercy. I well remember, when a youth, when an epidemic of Asiatic cholera had been decimating the country, that a gentleman in my hearing said that after a day passed in prayer the cholera at once abated. Such was the opinion then, and to some extent yet entertained by the ignorant, superstitious, or religious people of to-day. In those times a physician was busy hunting up some panacea for the cure of disease. If he failed to effect a cure the community offered themselves the consolation that all had been done that could be done, and it was the Lord's will that the patient died. It did not enter the mind of the physician to make diligent effort to prevent the spreading of the disease, but to keep up the spread of the epidemic, and still be on the lookout for some new remedy whereby he could cure the malady and acquire a great reputation.

Like the Keeley quack, keep the saloons up to a full head of steam, make as many drunkards as possible, thereby enhance his business financially; one about as reasonable as the other, only the matter is rather in favor of the Keeley quack, for sometimes he gets his patient back two or three times in a very brief period.

The physician has generally been regarded as a person whose sole duty was, when called in a family, to examine the patient, and find out the nature of the disease and prescribe. His advice as to the prevention of disease in many cases was not deemed necessary or important; in fact, it was none of his business. When we come to figure up the loss of 150,000 lives, who are yearly sacrificed in this country from sheer neglect of the rules of health, it is a heavy penalty for the disobedience of the laws of nature. When we calculate the loss of that many people to the nation, it means a great depletion of her power, besides a great financial loss, not counting the cost of their sickness. "Health is wealth." Besides, it entails upon the State an unnecessary expense in the care of the many sick

*Read before the North Missouri Medical Association.

poor, and makes homes desolate, and hangs a pall over our fair land which should not exist, and gives that showing in our vital statistics that leads to an erroneous impression that our race is growing weaker.

There are so many physicians who do not pay any attention to the subject of public hygiene, a large number of whom have no standard work upon the subject or take a journal devoted to that question. They only read what may be spoken of incidentally in the common text-books in works written upon the practice of medicine, which are very brief, and many important points could not be treated exhaustively in works of that kind. There are many physicians who do not know the difference between an antiseptic and a disinfectant. In many cases they thoughtlessly permit their patients to expose themselves to causes that engender disease. And epidemics have occurred by their carelessness and neglect to discharge their duty. Of course, when this country was sparsely settled, when people lived in the country at some distance from each other, when the smoke of their cabins would seem to go up a mile high, which no decomposing products but what was washed off by the rain-fall, there was not the need to put such a close watch upon communities, but with the growth of our towns and cities it has become a necessity.

In the city of Boston each school has a physician, who makes daily visits to ascertain the condition of the pupils, and reports the same to the President of the Board of Health. Children infected with contagious disease are immediately sent home, and if the children are too sick to attend school, their family physician is called to attend them. Of course, such a procedure in our towns would hardly be practicable. But who ever thinks about the examination of pupils before entering school; their eyes and ears, their throats and lungs, should be examined previous to their admission to the school-room. In this State no inquiry is had as to whether they have been vaccinated, nor do I know that there exists any law that makes it compulsory. No physician is ever called to the *campus* of the public school to ascertain its sanitary condition. In fact, nothing is done, unless an unusual amount of sickness occurs among the scholars; then the people begin to be alarmed, and will probably censure the School Board after the epidemic is well on.

No one thinks of the inspection of the water supply of a town, no analysis of the water is ever made, unless an epidemic of typhoid fever makes its appearance in a community. After many cases have occurred, and, perhaps, a number of deaths, then the people begin to wonder if there is not some latent cause existing in their neighborhood that lies at the bottom of the whole matter. Then they begin the investigation after a number have been carried to the cemetery, a number lying sick and helpless at home, entailing a heavy expense upon their families. Would it not have been the wise thing to have investigated the *status* of affairs before any

sickness had occurred? It is true that it would cost something to make the examination. But how much greater is the cost when neglected? The lives of dear friends sacrificed, in which money would be counted as nothing in exchange for their company in society. Sad, indeed, it is to contemplate such a state of things.

While discussing the subject, a party once said to me: "Doctor, you certainly don't mean to injure your business by proposing measures to decrease the sickness of the country?" I had this to say to him: "In ancient times, in the northeastern part of Asia, there existed a race of people who were savages, who led a nomadic life. When their parents became old and helpless, instead of that care which is due from the children to their parents, they would kill them, boil them up and eat them. Such a person, who holds no higher estimate of humanity, ought to have lived then, and been served in the same manner." I cannot see how any person could entertain such a view in this age of civilization; how any one could look upon suffering humanity and take joy at their sufferings. Those of us who have been in the sick-room, and have seen the anxiety of friends expressed in language that would affect any living mortal, will be glad to see the day when there will be no sickness.

Three tramps, walking on a railroad track after night, quite a distance from any station, discovered a defective bridge, which had been wrecked by a heavy freight train. The first one said: "Let us secrete ourselves here in the bushes, and witness the coming passenger train go down in the deep ravine." The second one said: "Let's walk on, it is none of ours; besides, we must make the next town and get our breakfast." The third one said: "No, I will stay here." Which he did, and built him a fire. As soon as he heard the rumbling of the cars, he rushed upon the track with a few flaming fagots in his hands, and signaled the danger that was impending the crew and passengers. If he had never received a cent, or any emolument whatever, he was paid a thousand times for having the satisfaction in his heart of the great benefit he had rendered humanity, the lives he had saved, the untold sufferings he had prevented, and the conscious feeling that he had lived to benefit the world.

Now, gentlemen, it is not the sole duty of the physician to prescribe pills and powders, and to attend the sick, or perform surgical operations. The people of this country are at this time quite ignorant of the subject of public hygiene. They need information upon the subject, which can only be done by giving them that information through the newspapers of the country, and from the platform. The newspapers are quite willing to embrace such an opportunity. As a rule, the editors of our papers are a class of men who are philanthropic, and are earnest workers for the benefit of the people. No class of men is to be found who will do as much of what may be called charitable work as they. Then why not call them into line,

to write up articles on such topics that concern the important question of public health? An article published in the local paper, and signed by one or two physicians who live in their community, will be read ten times sooner than if it appear in a metropolitan paper under the signature of a person entirely unknown to them.

The medical profession stands the highest of the three great professions. Its members are every day on a mission of mercy, are daily wearing out their lives to save human life, and to relieve the suffering of mankind. No night so dark, no weather so cold or hot, but they go, yes often go when they themselves are hardly able to get in their carriages, or on a horse, and are willing to make any sacrifice to save a human being. They attend to cases of contagious disease without hesitation, knowing they, too, may contract the disease and die. They save many who are sick with the different diseases incident to the climate in which they live. They boldly, fearlessly, successfully perform many operations upon patients who would certainly have died but for the operation. By that means they have prolonged the lives of thousands. Without such an operation there could not have been any hope. In this manner many have left a name in history, and many are to-day making history of great achievements in operative surgery, whose names will outlive warriors and statesmen. While this is true, the many who are engaged in the study of the microbes, and investigating the plan to prevent diseases are doing still nobler work. Theirs is to prevent human suffering. Theirs is to keep human life on the safe side of danger, where there are no risks to run. They are adding strength to the nation, and saving millions of dollars and thousands of lives. The physician, which is the great High Priest in every community, to him the world looks for advice, not only when sick, but how to avoid disease when well. He is supposed to be learned and informed on all the questions that pertain to public health. Then it becomes a duty that we should diligently study the subject, and zealously labor to educate the masses upon those things which so much concern the safety of the people. Who can calculate the great good accomplished by Jenner? Who can estimate the worth of Robert Koch? Yet we might say they are only pioneers in this benevolent cause. There are others to arise and advance the means of the prevention of disease. All the advancements of the science of medicine have been developed by the regular profession, while the host of quacks that infest this country are like a gang of outlaws following the track of a reglar army, whose sole purpose is to get money under false pretense.

We, as scientific physicians and philanthropists should breathe in a deeper inspiration, not only to cure the sick and care for the wounded, but constantly study the causes of disease, and use every means to prevent our citizens becoming affected by disease. No class of men on earth is more devoted to the interest of humanity, no class of men has greater hearts or more liberal souls.

I say, gentlemen, in conclusion, let us fall to work with a redoubled vigor in the cause of public health. Let it be said for the physicians of Northeast Missouri that we are abreast with the times. Shakespeare says: "The evil that men do lives after them; the good is oft interred with the bones." I do not believe it. Men who live for themselves are soon forgotten, but men who devote their lives for the cause of humanity live long in the hearts of the people. They are remembered, though no marble mark the spot where they are buried. Then they have that feeling in their bosom that raises their souls to heaven.

"The lives of great men all remind us,
That we can make our lives sublime,
And departing, leave behind us,
Foot-prints on the sands of Time."

LIFE INSURANCE AND ITS RELATION TO SANITARY LEGISLATION,

By WESLEY G. BAILEY, M. D., of Pekin, Ill.

AS cleanliness is (next) to godliness, so is sanitary legislation to life insurance.

Examiners should no more think of recommending a risk where the environments are unhygienic, or subject to violent outbreaks of epidemic disease where no public sanitation is in force, than to assume that a consumptive is a good risk. Much might be said on this line. Good public sanitation may exist with poor home surroundings. It is partly on this account that some companies prefer examinations to be made at the home of applicant.

The words of Dr. John McCullom, of Boston, can fitly be quoted at length here:

*"If the dangers of vaccination were fifty-fold, if its protective power was only one-tenth of what it really is, no man, who has had any experience in the treatment of small-pox, could have any doubt of the value of vaccination to the community; no man who has been brought in daily contact with a person suffering from unmodified small-pox, one of the most repulsive diseases in existence; no man who can intelligently and with an unbiased mind study mortuary statistics, can have any doubt of the protective power of vaccination. This whole subject can be summed up in a few words by the quotation from Scripture on Jenner's tomb: 'And he stood between the dead and the living; and the plague was stayed.'" The above inscription is one of the best effusions on preventive medicine showing the true relation of sanitary legislation to life insurance) in existence.

*See CHICAGO CLINICAL REVIEW, Oct., 1894, page 26

It is almost useless to point out the difference in death rates "before and after taking" (applying) laws on State medicine and public hygiene; to certain communities its value is well known.

What an elysium it would be for life insurance companies in this country if we had a Cabinet Officer at the head of a Department of Public Health, with an efficient coterie of field and staff officers. We would have no more outbreaks of a violent character of pestilential infections, or contagious diseases; even that "thorn in the flesh" to life insurance societies, *tuberculosis*, would receive a wonderful check, and in less than a generation would be nearly stamped out of existence.

It is asserted and proved that preventive inoculation against cholera is efficacious:

*In a village of two hundred inhabitants in India, one hundred and sixteen were inoculated. An outbreak of cholera occurred, ten persons were affected, seven died, none of whom were inoculated. Those inoculated were unaffected.

Public health is a subject that should interest every one; hence, the nearer perfection our methods of preventing disease attain, and, consequently the less it costs us for physicians' bills, the better we are pleased —this is particularly true in reference to the interests of life insurance associations.

The door of public health is the one that must (and always does when properly closed) shut out a "multitude of sins" (diseases) in the near future.

No company thinks of insuring a person where two or more of the same family have died of tuberculosis; think, then, what a temptation it becomes for an apparently healthy man to hide such a history in order to protect a family not properly cared for by other property interests in the event of the death of the wage earner. A Bureau of Public Health in perfect working order would change all of the above, for it would, of course, *prevent* the *intermarrying* and *commingling together* of tubercular subjects. No man has an individual right to sow broadcast the germs of any disease —and particularly one so fearful in its ravages as tuberculosis, any more than any foreign country has a right to drop disease-laden paupers on our shores, simply because we are a free people.

Hence, in my opinion, it is time that the moneyed interests (life insurance companies first, because their business is the chiefest interested) should combine, and, plainly, bear the largest portion of the expense in enacting legislation for the advancement of the sanitary sciences, etc., throughout our country. It is by education alone—by contrast with their former conditions, *existing preventable disease*, that the laity will coöperate with the profession in this matter.

Again we say, let insurance companies take the lead in procuring a Department of Public Health in the National Cabinet, for in this is the nearest road to their elysium.

*ANNALS OF HYGIENE, Aug., 1894, page 483. In further proof see CHICAGO CLINICAL REVIEW, March, 1896, page 376.

PSORIASIS,

By A. H. Ohmann-Dumesnil,

Professor of Dermatology and and Syphilology in the Marion-Sims College of Medicine, of St. Louis.

A DERMATOLOGIST once remarked that he knew of no design to equal in beauty a well-marked case of psoriasis, and were he to suggest mural decorations for a king's palace, he would choose for that purpose a reproduction of the eruptions he had observed in certain cases of this disease. So far as the patients themselves are concerned, they certainly do not seem to look upon the trouble from such a highly artistic and esthetic point of view. Psoriasis is not an infrequent disease, and it often assumes forms which, to the untrained eye, are apt to prove very misleading and, at times, puzzling. The variety of forms which it assumes is also very great, and acts as a further factor in increasing the difficulties in formulating a diagnosis, the more so as there are other cutaneous troubles which closely simulate the one or the other. Add to this the fact that the appearance is often alarming to the unpracticed eye, and it will readily be seen that a mistaken diagnosis of syphilis is not an unusual occurrence. It is for this reason that a true appreciation of the fundamental characteristics of the psoriatic process should be learned and from it an adequate idea of the different variations may be learned, as well as a more accurate method of determining the true condition which is present in any given case of suspected syphilitic eruption. In this respect the importance of recognizing the configuration of the disease cannot be overestimated.

As a rule, psoriasis begins as one or several red macules, which increase in size rather rapidly, and soon become covered with dry, horny scales. These scales are inclined to be rather thin at first, but as the lesions increase in size they become thicker. Before long they accumulate and the masses are comparatively thick, giving a raised appearance to the patches. It is then that they assume the so-called silvery or mother-of-pearl appearance and the glistening reflection which has been so often described by authors. This peculiar sheen is rarely observed in other dermic affections, and when seen should immediately direct attention to the supposition that the case under observation is one of psoriasis. In leprosy analogous white scales are observed, but they lack the glistening appearance; but this very circumstance has led ancient authors to designate psoriasis *lepra alphos*, and there is no doubt that it is one of the forms described in the book of Leviticus as non-contagious leprosy, and is the disease which affected Aaron. A reference to Figure 1 will show this form in a well-marked degree. In this case the back and legs were also the seat of the eruption, and it had the same character in every portion of the integument which was attacked. The picture, however, does not represent, except in a faint degree, the silvery appearance presented by the lesions.

In all the forms of psoriasis there is one characteristic which is constant. The scales are rather adherent, and when scratched or scraped off a lesion, a denuded, smooth surface is exposed, which is studded with pin-point drops of blood, due to the denudation of the apices of the hypertrophied and gorged papillæ. This peculiar form of bleeding is very striking, and has been looked upon as a pathognomoric sign of the disease. It is even regarded as the most reliable sign in establishing a differential diagnosis when any doubt exists. In other squamous cutaneous diseases, when the scales are forcibly removed, quite an extensive oozing of blood takes place, and the entire affected surface looks bloody on account of the capillary hemorrhage.

FIG. 1. Squamous Nummular Psoriasis.

To resume the description of the clinical appearance presented. It must not be forgotten that psoriasis varies not only at different stages but that it develops in different individuals in unlike manners. It may be stated in general terms that the patches vary in size from that of a pin-head to quite extensive areas, as may be seen by a reference to Fig. 2. The particular locality in which the patches are situated seems to exercise but little influence upon their size. Authors for the most part state that the disease occurs preferably on the extensor surfaces, and particularly on the elbows and knees. So far as my experience goes I have found these assertions totally unreliable. The eruption of psoriasis may occur upon any part of the integument, and it is seen as frequently on the flexor aspects as on the extensors. I have furthermore found that the elbows and knees are

not particularly prone to manifest the process. The buttocks are localities claimed to be favorite sites, and this is also incorrect. A reference to Fig. 2 will readily demonstrate this. Again it is stated that when occurring

FIG. 2. Circinate Psoriasis.

upon the scalp the border of the hair forms the boundary line of the eruption. I have found that it extends behind this limit, and it is far from unusual to see the lesions upon the face. Rare localities for the manifestation

of psoriatic patches are the palms and soles, and when seen in those places a suspicion of syphilis or of eczema should immediately be awakened. The comparative rarity of this manifestation, unaccompanied by the disease in other portions, has led to the suspicion that reported cases are, to say the least, doubtful so far as diagnosis is concerned. Besides, even if psoriasis is manifest in other portions, it is a question whether there is not a combination of that disease and of syphilis in the same individual. However, it is unnecessary to enter into a discussion of this question, in view of the rarity of the occurrence.

Whilst the statement has just been made that the scales are somewhat adherent on the patches it must not be supposed that they cannot be separated. Friction, especially of the clothes, easily effects this, and, as a result, the clothing is always found full of scales in untreated cases. It is this desquamation which occasions the only subjective symptom observed—whilst not painful, a slight itching is noted, but it is immediately allayed directly a separation of the loose scales is brought about. The most prominent subjective inconvenience observed is purely mental, caused by the distress the patient feels at the bare thought that he scales like a leper. It is analogous to the idea which is produced by ichthyosis and it is not of much importance, for the comparatively stationary stage which sets in ceases to cause alarm, and inattention to it soon follows.

The forms assumed by the eruptions of psoriasis are quite numerous, but may all be reduced to a comparatively few in number. A number of terms are employed to designate the various appearances presented, the characteristics of the disease, however, remaining pretty much the same throughout all of them. Thus, we have *psoriasis punctata*, where the lesions are pin-head in size and rather elevated. In *psoriasis guttata* an infrequent form is presented. In this the lesions are of the size of the little finger-nail, and out of each one there exudes a drop resembling mortar. *Psoriasis nummularis* has round coin-like lesions, as shown in Fig. 1. In *psoriasis circinata* the lesions are more or less circular, and have the centre cleared up to a certain degree, as may be seen in Fig. 2. There is *psoriasis gyrata*, in which lesions coalesce, the overlapping portions disappearing and leaving elevated serpentine lines. A form which is not unusual is *psoriasis diffusa*, in which large areas are involved. The names of many other forms could readily be given but those already mentioned are sufficient to give a clear idea of this part of the subject. A point which should never be lost sight of is that those forms which are markedly squamous are distinctly elevated in their entirety above the general surface of the skin. In the other forms it is the periphery which is raised, and, as a rule, is more or less reddish. In all a very sharp line of demarcation separates the healthy from the affected parts, and when patches spread peripherally, as is their wont, the same sharpness of definition per

sists. It acts the same in children and in adults, who are both liable to be attacked.

So far as the cause or causes of this disease are concerned we are still in the dark. Nothing positive has, as yet, been determined in this matter. Neither diet nor affections of internal organs have been found to act as causative factors. As a rule, psoriatic patients enjoy good health, and it would seem as if the dictum of the elder Hebra, that psoriasis is a skin disease of healthy people, is a true one. It has been claimed by some that it is due to micro-organisms, but this has never been fully established, and the fact that the affection is not contagious would seem to invalidate the claim made in favor of its parasitic origin. Moreover, it has never been successfully produced by experimental inoculations. The trouble is essentially chronic in nature, but will readily yield to appropriate treatment. At times it is very obstinate and resistant to all forms of medication, when it suddenly gives way and disappears in a remarkably short space of time. Its cure should never be definitely promised, as it is very prone to relapse. Such relapses are apt to take place in from one to five or six years, and, unfortunately, no definite idea can be given of the time it shall positively remain in *statu quo*. The best that can be done in the way of treatment is to make the existing eruption disappear in as rapid and complete a manner as possible, and all treatment is directed to this sole end. This has been the universal experience of all those who have had an opportunity of treating a number of cases and who have followed them for a number of years.

The treatment may be entirely local, purely internal, or both. There is no doubt in my mind that the last is the preferable method, as it has succeeded better than either of the others in my hands. The exclusively local methods and the majority of purely internal will both find suitable mention in the consideration of the combined methods. Two methods of purely internal treatment are deserving of mention. Haslund and others since him have reported excellent results following the administration of massive doses of iodide of potassium. Beginning with about one hundred grains a day, it is rapidly increased to one ounce, and this continued for several weeks. This, however, is not only deleterious to the stomach, but is very apt to produce iodic intoxication. Another remedy which has been employed, but without good effect, is thyroid extract. Much was expected of it, but it failed to accomplish the desired purpose, and it proved a complete failure in my hands.

The combined treatment is that which I have found of the greatest value, and the internal treatment best adapted to it is the administration of arsenic. It is not unusual for the arsenical treatment alone to make the eruption disappear. It may be administered in the following manner, and by combining it properly no untoward effects need be feared:

℞ Liq. kali arsenitis, ... ℥ij
Vini ferri, ... ℥jss
Aquæ, ... ℥ss
M.
Sig. Teaspoonful in water after each meal.

A much preferable manner of administering arsenic is beyond doubt in the form of the Asiatic pill. When properly prepared there is but little if any danger of arsenical poisoning following even a prolonged use of the pills. A good working formula is the following, for an adult:

℞ Acidi arseniosi, ... gr. ij
Pulv. piperis nigris, ... ℥jss
Ext. gentian, ... q. s.
Ft. tal. pilulæ No. 40.
Sig. One pill after each meal.

Solution of bromide of arsenic has been used as also the pills of sulphide of arsenic, but these preparations do not seem to act as well as those mentioned above, and cannot be recommended as being efficient in a manner satisfactory to either patient or physician.

The local methods of treatment are numerous as well as varied. In the beginning, when the process is more or less acute, alkaline lotions and bland ointments are to be used. However, patients are not often seen at this stage. When they present themselves for treatment the chronic stage has declared itself. More vigorous means are then to be followed. It is imperatively necessary that the scales should be removed, and for this vigorous scrubbing with sapo viridis and water is indicated. After this an application may be made consisting of sapo viridis, oil of cade, or tar ointment. A strong sulphur ointment or resorcine ointment is also of service. A favorite preparation with some is Hebra's modification of Wilkinson's ointment, made as follows:

℞ Sulphuris precipit.,
Olei cadini, ... aa ℥iv
Saponis viridis,
Adipis, ... aa ℥j
Cretæ preparat., ... ℥ijss
M.
Sig. Apply twice a day.

Chrysarobin, however, is the best application, and it may be applied either in ointment form or in rubber solution. It is best combined with salicylic acid, thus somewhat mitigating its irritating effects as well as the staining which it produces. The following is a varnish which will be found of service in those patients who positively refuse to use ointments:

℞ Chrysarobini, ... gr. x
Acidi salicylic., ... ℈j
Traumaticini, ... ℥j
M.
Sig. Apply once a day.

An ointment which is not only rapid in its action, but quite thorough as well, is the following:

℞ Chrysarobini, ... gr. xij
Acidi salicylic., ... gr. xv
Ichthyol, ... ℈ij
Ung. aquæ rosæ, ... ℥j
M.

Sig. Apply thin twice a day.

Of course, the quantities should be modified according to the texture of the implicated integument, as well as the amount of thickening found in the lesions. These questions must be settled by the observer. It must never be forgotten that one of the untoward symptoms observed in the course of treatment is a rather severe erythema surrounding the patches, and when this appears suspend the use of the ointment. Another feature which is disagreeable to patients is the brown stain caused by chrysarobin. This can be removed by applying a one in eight ichthyol ointment. As sheets are stained brown by chrysarobin, patients who employ it should have blue sheets, dyed in indigo solution, this color remaining unaffected by the medicament.

INTERSTATE MEDICAL CERTIFICATES.

Since the establishment of State Examining and Licensing Boards in the United States, an anomaly, both amusing and vexatious, has been exhibited. American physicians who feel aggrieved at the fact that they could not practice their profession in foreign countries without previous exrmination, are now debarred from "all the rights and privileges" their diplomas are supposed to confer upon them if they but cross a river, or an imaginary boundary line in their own country. A physician living in Philadelphia, though he be of eminence and acknowledged repute in this country and Europe, if he had neglected to register in the State of New Jersey previous to a certain date fixed by its Medical Practice Law, could not lawfully prescribe for one of his own patients temporarily sojourning at Atlantic City, unless summoned in consultation by a physician qualified under the laws of New Jersey. Physicians who may desire to remove from Pennsylvania to New York, or *vice versa*, must undergo the nuisance of examinations, and these examinations, while perhaps well suited to test the knowledge of recent graduates, are hardly of the proper character for physicians who have not recently attended lectures, but are nevertheless thoroughly competent at the bedside.

This state of affairs is radically wrong and should not be permitted to continue. The various licensing huthorities should agree upon the conditions necessary to permit the certificates of one board to be accepted by all other boards; while physicians possessing the diplomas of reputable schools issued before the days of State Examinations ought to be permitted to practice in any State upon proper authentication by the licensing authority. The subject is one of considerable importance, and the interests of more than a few individuals are involved. We should be glad to see it thoroughly discussed and a practical conclusion reached and put into effect, which shall properly safeguard the public without requiring physicians either to pass their lives in the State they may happen to begin practice in, or to undergo forty-odd examinations when just fresh from college.—*Philadelphia Polyclintc.*

FORMULAE.

Application for the Removal of Warts.—

℞ Sulph. flores, ... 10.00 ..... 150 grs
Glycerinæ, ... 25.00 ..... 6¼ drachms
Acidi acetici, c. p ..... 5.00 ..... 4¼ drachms
M.: Shake well.

A little of this mixture is applied daily on the wart.—*Lyon Medicale.*

Elixir Three Chlorides.—

℞ Hydrargyri chloridi corrosivi, ... 1 gr
Sol. acidi arseniosi, ... one p. c. ..... 60 min
Tinct. ferri chloridi, ... 120 min
Syr. aurantii, ... 2 oz
Acidi hydrochlor. dil., ... 120 min
Aquæ ..... q. s ..... ad ..... 6 oz

—*Peoria Medical Record.*

For Dry Eczema With Pruritus.—

A formula emanating from Thibierge is:

℞ Menthol, ... gr. xxx
Resorcin, ... gr. xv
Sulph. precip., ... ℥iiss
Zinci oxidi, ... ℥iiiss
Vaselin, ... ℥j

Ft. unguent.—*Medical Times and Hospital Gazette.*

For Gout.—

℞ Magnesii sulph., ... ℥ij
Potass. bicarb., ... gr. xv
Tr. colchici sem., ... M x
Infus. buchu, ... fl. ℥j

Ft. haustus. Sig.: To be taken every four or six hours, followed by a large draught of water, not too cold.—*Fothergill.*

For Whooping-Cough.—

Eschle recommends the following mixture:

℞ Infusion of belladonna leaves (gr. viij) in distilled water, ... ℥v
Antipyrin, ... gr. xv
Syrup of gooseberry, ... ℥j
M. Sig.: A teaspoonful every two hours for a child of five years.

As a rule, there may be given, for each year of the child's age, gr. viij of belladonna leaves in infusion, and the double dose of antipyrin.—*La Medecine Moderne.*

For Spasmodic Asthma.—

℞ Tr. lobelia æthereæ, ... M xv
Spts. ætheris, ... M xx
Tr. chlorof. comp. ..... M v
Aquæ camphoræ, ... ad ℥j
M. Sig.: To be taken when breathing is difficult.—*The Practitioner.*

For Paralysis Agitans.—

℞ Strychniæ sulphat., ... gr. j
Acid. arseniosi, ... gr. ij
Ext. belladonnna, ... gr. v
Quininæ sulphat., ... ℈ij
Pil. ferri carbonat., ... ℈ij
Ext. taraxaci, ... ℈j
M. et ft. pil. No. 90. Sig.: One pill three times a day.—*S. W. Gross.*

Dusting Powder for Eczema.—

℞ Pv. amyli, ... ℥j
Pv. zinci oxidi, ... ℥ij
Pv. camphoræ, ... ℥ss
M. Sig.: For external use.—*Hyde.*

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EDITORIAL DEPARTMENT.

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ETHICAL CRITICISM IN MEDICAL JOURNALS.

There appears to be an impression among some of the pace-setters of the profession that all questions of medical ethics should be left for discussion to the secular press, and that the medical journals of the day should confine themselves to translating into English and printing the letters of Doctor Hayseed, where he tells us how "he never owned a pair of obstetric forceps in his life," and enlarges upon the "lye poultice cure" for a "bile," or the seven-page lecture of Doctor Bacteria Streptococcus, on the use of "cyanochiatanthropopion" in staining the spores of the new bacillus of varicella. After the journalist has got these articles set up, if he has any more room left, he can find plenty of reading notices from his advertisers, which he can publish.

All these things are considered perfectly harmless, but an editorial on medical ethics is generally loaded and quite dangerous. If this pestilential editor chance to describe a few of the acts of some great and mighty professor, or criticise some of his learned interviews, appearing in the daily press, down comes the great man to the Medical Society and elevates such howlings before high heaven as would make the angels weep. There is one thing certain, these men must not be made fun of. What they bear least of all is a little laugh at their expense. Whatever they do or say, you must all stand round in wonder and not dare to crack a smile. But

a living man, who can see one of these great professors prick a patient's finger, squeeze out a drop of blood, solemnly place it under a microscope, and, after gazing at it from all points of the stage, with contracted brows pronounce the word "Neurasthenia," and then sit down and write a prescription for bromide and cannabis indica without cracking a smile that will extend considerably more than half-way-round to the back of his neck, has certainly no business on the editorial staff of a medical or any other sort of a journal.

This which we have described may be a very useful process for all we know, and may yield a world of information to a person who is educated up to it; but, like Wagner's music, Browning's poetry, Ibsen's philosophy, and olives, it has an acquired taste, and unless we can make it add to the gayety of nations, it stands a good chance, in this day and generation, of being unappreciated.

One great aim of medical journalism is to instruct; of course, to furnish to the profession the new and wise information as it comes to light; but more than all this, to help to make the dull, humdrum, prosaic life of a physician endurable. The grain of truth, be it ever so small, is never hidden in this way, and we give it as our private opinion that the great professor who cannot enjoy a little laugh at his own expense has no just claim to greatness, and is just a plain ordinary fraud, and is only worrying for fear somebody will find him out.

The truly great and the truly sincere man is never pompous, never ostentatious, but has a pleasant smile for everybody; in short, like poor, dear, old Curtman, whom we have so recently and sadly laid to rest.

R. C. B.

INTRODUCTION OF VACCINATION INTO AMERICA.

It is highly creditable to the United States that Jenner's discovery should have met with a cordial welcome. It was in 1799 that the splendid news reached our shores. Immediately Dr. Benjamin Waterhouse, of Harvard University, published an account of Jenner's book, and brought the matter before the American Academy of Arts and Sciences. John Adams, President of the young Republic, presided at the meeting, and received the communication in a manner worthy of the importance of the subject. Dr. Waterhouse soon vaccinated seven of his children, and afterward exposed three of them to small-pox without result. His example aroused an intense interest, and medical men became more enthusiastic than prudent in the practice of vaccination. Some practitioners gave no attention to the condition of the matter used, the progress of the pustule or the state of the recipient's constitution. As must necessarily occur when humanized virus is employed, bad results sometimes followed. Some, not of the profession, began vaccinating, and "obtained the shirt sleeves of patients which had stiffened by a purulent discharge from an ulcer consequent on

vaccination. These they cut into strips, and sold about the country as impregnated with the true vaccine virus." It happened that the true virus was lost, and a new supply came from Jenner in 1801. Some of this was sent to Thomas Jefferson, President of the United States, and was used successfully. To Jefferson belongs the credit of introducing vaccination among the American Indians; and in 1807 the Council of the Five Nations sent a wampum belt to Jenner with a letter, saying: "We shall not fail to teach our children to speak the name of Jenner, and to thank the Great Spirit for bestowing upon him so much wisdom and so much benevolence."

In the early days of the discovery the transmission of the virus was a difficult task. Jenner collected the virus on a silk thread, which was used by passing it through the recipient's skin. Some used impregnated lint, or enclosed silk threads in bottles or between pieces of glass. Lancets of steel were employed, and following these came instruments made of gold and silver. Finally Dr. De Carro, of Vienna, introduced the ivory point, and the problem was solved.

Jenner was not the first man to use vaccination. As has happened frequently, the profession was preceded by the laity, and in respect of vaccination it was a layman, Mr. Benjamin Jesty, to whom we must give the credit of first employing the vaccine virus to prevent small-pox. It was in 1774 that this simple farmer, familiar with the traditions of the dairymaids, inoculated his wife and two sons with vaccine virus. By invitation of the Jennerian Society, Mr. Jesty went to London in 1805. He was given great attention; a pair of gold-mounted lancets was presented to him, and his portrait was taken by Mr. Sharpe.

THE PERILS OF ADVERTISEMENT.

Dr. Krause, *privat-docent* in the Medical University of Berlin, has tendered his resignation, under the following circumstances. It seems that soap is well-nigh as lavishly advertised in Germany as it is with us, and an enterprising firm of manufacturers succeeded in inducing Dr. Krause to allow his name to appear at the foot of a testimonial. The attention of the faculty having been called to this indiscretion, Dr. Krause was called upon to furnish explanations. He declined to do so, or even to express regret, and when the faculty, justly indignant, inflicted upon him the severest reprimand at its disposal, he threw up his appointment.

—*London Lancet.*

DOCTOR HALL'S ADDRESS.

Doctor C. Lester Hall, late President of the Missouri State Medical Association, gave many valuable points in his presidential address at the Sedalia meeting. His views on illegitimate medical advertising are as follows:

"It must be viewed with grave concern, the reckless disregard of the

code as a guide for our professional conduct, and the restless craving for notoriety indulged in by erstwhile members in good standing in this Association. When a member will cause to be printed upon the outside wrapper in which he sends out his reprints, "Synopsis of 100 ovariotomies with six woodcuts," etc., with his name in full, or submit to the inquisitiveness of a reporter for the public press, as to "how the hours of a busy physician are employed," it does seem that we, as a profession, are imbibing that spirit of commercialism which is specially characteristic of this age."

A TOTTERING IDOL.

Ludwig the Great is doomed! The idol is tottering! The great neurologist who shakes his fist and blows out anathemas at those whom he imagines to be his enemies, is no longer the monarch of the Saint Louis Medical Society. Reason has come to those who so long have submitted to his domination; courage has taken the place of fear; investigation, the forerunner of knowledge, stalks through the land; and the rank and file assert the rights of freemen, and think! Thought brings opinions, and opinions have changed of late.

The code should be observed by all—even by Ludwig the Great.

OUR PLATFORM.

In order that there may be no misunderstanding, we wish to say that the TRI-STATE MEDICAL JOURNAL stands for the code of ethics of the American Medical Association; for higher medical education; for the rights of the rank and file of the profession; for progress in medical science, and for the doctors of the United States of America.

We believe in the right of the medical press to discuss any and every question which concerns the welfare or is of interest to the medical profession. When necessary, we shall not hesitate to commend or to condemn individuals, customs, systems or modes of procedure. If any one disagree with us, he can reply through our columns if he desire, or elsewhere if he wish. We never have attacked an individual maliciously or without cause. We recognize the fact that the individual is nothing, comparatively, while the profession is everything.

THE TRI-STATE MEDICAL JOURNAL always has been fearless in the exposure of fraud. It is the recognized enemy of low-grade medical schools, and more than once the lash of criticism has been laid upon such institutions. This publication is not the organ of any medical college, medical clique or political gang. Nor is it run for the purpose of booming its owner and his associates. Ever since its founding it has been our aim to gradually build up a journal which would jealously guard the rights of the profession and become a power in the land. We never have humiliated ourselves by becoming the tail to any one's kite, nor have we found it

necessary to laud every manufacturer's products *ad libitum et ad nauseam* in order to further the financial interests of the publication.

Imbued with these principles, and knowing that he whose cause is just is doubly armed, we ask the support of the ethical, honest and intelligent doctors of America.

THE MAYFIELD SANITARIUM.

Doctor W. H. Mayfield, who recently resigned from the Missouri Baptist Sanitarium, has nearly completed an elegant private hospital on the corner of Taylor avenue and Morgan street. The building will be finished in the latest aseptic style and will be modern in every respect. That it will be a success goes without saying.

CHICAGO COLLEGE OF PHYSICIANS AND SURGEONS.

The advertisement of the Chicago College of Physicians and Surgeons will be noticed in this issue. This institution was one of the first in America to properly equip laboratories for teaching histology, pathology, physiology and experimental surgery. In its faculty are some of the ablest medical teachers in the West. With a splendid faculty, well-equipped laboratories, and immense clinical advantages, the future of this school looks very bright.

"THE LARYNGOSCOPE."

This new journal, devoted to diseases of the nose, the throat, and the ear, begins its career with the July number, which contains seventy-two pages of reading matter, well printed and well illustrated. It is edited by Dr. Frank M. Rumbold and Dr. M. A. Goldstein, of St. Louis. The staff of associate editors consists of Dr. M. D. Lederman, of New York, Dr. S. Scott Bishop, of Chicago, Dr. W. Scheppegrell, of New Orleans, and Dr. F. B. Eaton, of San Jose. A corps of foreign editors is made up of Dr. J. Dundas Grant, of London, Dr. Victor Urbantschitsch, of Vienna, Dr. J. J. Kirk Duncanson, of Edinburgh, Dr. A. Hartmann, of Berlin, Dr. J. K. Kimura, of Tokio, and Dr. G. Sterling Ryerson, of Toronto. The editors intend "to fill the niche between the strictly special and the general journals with that class of physicians who confine themselves entirely to the treatment of the diseases mentioned, or who pay special attention to these troubles while maintaining a general practice." We wish them success.

COLUMBUS MEDICAL LABORATORY.

Much of the best scientific work in Chicago is being done in the Columbus Medical Laboratory, 103 State street, where Doctors Gehrmann, Evans, Harsha, and Wesener are found. These gentlemen make chemical and microscopic examinations of urine, blood, gastric juice, cystic fluids, sputum, etc. They also give instruction in laboratory medicine. They have kindly invited our readers to call and inspect their facilities for scientific work.

A DISCREDITABLE ÆSCULAPIAN.

Out in Kansas City is an organ of a medical college. The organ is named the *Æsculapian*. Already five moons have passed since it was founded. Already in its brief little life it has given evidence of the illegitimacy of its existence. In the only number which we have had the misfortune to see, we find sentences pregnant with woe. Evidently somebody's corns are pinched:

"LITERARY QUALIFICATIONS.

The State Board of Health of Missouri has announced that no one will be permitted to enter a medical college who has not a diploma from an accredited school or college, together with some knowledge of Latin.

A teacher's certificate will no longer be accepted, and all persons desiring to enter a medical college, who are not in possession of the requisite diplomas, must stand an examination before some one designated by the board. This ruling of the State Board has caused considerable of a stir among the Missouri medical colleges, and an effort is being made to have this ruling modified. The State Board may have gone too far in some of its requirements, but the abolition of the teacher's certificate was a just one. It is strange that when a favor is shown to the young men who have been teachers in our public schools, and who are and make our best medical students, they should be placed under ban by trickery. It is to be regretted that teachers' certificates are purchasable, and some students carry them who have never taught a day or stood an examination.

Why should a medical man have a literary education and be able to decline a Latin word! We would be pleased to have some one answer the question. Why should a young man, who desires to practice medicine, be compelled to spend four years in a literary college and three or four years more in a medical college? Does the end justify such a waste of time and energy? If the high standard of education required by the State Board is in the nature of a "protective tariff"—*i. e.*, to curtail the enormous output of medical graduates, and thus protect those already in the field, it may be advisable as a means to an end; but let us look on the other side of the question. Men, as a rule, attain to their highest powers by the inducements extended to them in certain fields of work, and it is needless to add that the end is not mere glory, but with it a livelihood—money. It is an admitted fact, and a sad commentary on the age, that, so far as the mere practice of medicine is concerned, it is better to be a fool with a successful reputation, than a scholar with no reputation. In many cities and communities the *leading* physicians are often the most ignorant; they have a smattering in medicine, and an Egyptian darkness rests on their brain on every other topic. The world does not stop to ask: "Doctor, do you understand Latin?" "Are you an A. B. or A. M.?" but, "What is your repuation?" And the so-called reputation comes as easy to the shyster, the quack and the ignoramus, as to the educated man.

The medical profession is ahead of the age. When the age calls for a higher education among medical men, they will be forthcoming. That call has not yet been made. As long as fakes, like science healing, faith cure, osteopathy and kindred humbuggery prevail among the so-called enlightened people, the mandate for a higher education will slumber for years. The doctor always will be what the age in which he lives makes him.

The young man who expects to enter a professional life will never bring into that profession a qualification which is not needed, not appreciated, and which does not contribute to his success

It is useless for Boards of Health to demand of medical men what the age does not respect or regard. When the "has went" and the "have saw" doctor can succeed as well as he whose mind is a storehouse of general and medical knowledge, then the fiat of a higher education is a failure."

In the same number we read that the *Æsculapian* is "rapidly forging ahead." We do not so see it. To us it seems that the poor little organ is forging the shackles of destruction. It is advocating ideas that are anarchistic, revolutionary, and destructive of the best interests of medical science, of the best interests of public health, and the best interests of that profession which, above all others, should be pure and free from stain. Why should a doctor know anything, why have any culture, any knowledge, any moral character, or be anybody? Why not take any fool, hoodlum or cow-

boy, and grind him out at the end of a few months of alleged study, present him with a diploma, and inform the world that a medical college may be a university in name but a machine in fact.

The time is here when low-grade medical colleges must either become high-grade institutions or close their doors. The intelligent laity demand their doctors be better educated, or that they limit their practice to the lower animals. Thank the Lord, we have in Missouri a Board of Health composed of progressive, intelligent and determined individuals. They have explicitly defined their position, and from their decisions there is no successful appeal. Old Missouri now leads the van. She has pronounced for higher medical education, and the pennants of victory are already floating at the mast-head.

The *Æsculapian* does not know that which is patent to any thinking doctor, viz.: that the ranks of the osteopathists and other quacks are recruited from the graduates of low-grade medical schools.

A Cure for Acne.—A typical case of acne came under my observation early in 1887. The progress was very rapid. The face became so badly blotched in a few months that the young lady was reluctant to show herself in public. She had received careful treatment from several different physicians for nealy three years prior to the time when she placed her case under my care. I treated her with the galvanic current, applying the negative electrode to the acne in turn, and keeping up the application during three sittings, of twenty minutes each daily. In conjunction with this treatment I used arsenic in various forms, also adopting a general tonic treatment. Abscesses formed, and were opened as necessary, some requiring repeated incisions. The result of this treatment was favorable in mitigating the symptoms, but was slow in action, and, although persisted in for several years, never produced a cure.

I determined to try arsenauro; the patient began by taking five drops, three times daily, in one-half goblet of water. The dose was increased one drop each day until she was taking thirty-five drops, three times daily, without any head symptoms or any characteristic evidences of arsenic poison. At forty drops, however, there was some giddiness. I then reduced the dose to thirty-five drops, and kept her on that dosage until I considered it unnecessary to continue the remedy. In all she took eighteen bottles of arsenauro, and has had no return of the malady since the discontinuance of the remedy in the latter part of October, 1895.

Her skin is now fair and smooth, even the scars left from the numerous incisions have become very much less noticeable. I consider the case entirely cured, and give the full credit to arsenauro.

At no time, no matter what the dosage, was there any symptom of irritation of the stomach. This is an important point, and well worthy of note.

So very marked is the change in her appearance that many persons have stopped her on the street, and asked her what she had taken to cure her.

J. M. INGERSOLL, M. D.,
Rochester, N. Y.

HISTORICAL SKETCH.

EDWARD JENNER, THE DISCOVERER OF VACCINATION. 1749-1823.

By James Moores Ball, M. D.

Only one century ago small-pox overran the earth—dreaded and unchecked. When the disease was introduced into Mexico by the Spaniards in 1520, in a short period it killed three and one-half millions of people, often leaving no survivor to bury the dead, and in the eighteenth century Dimsdale, who went to St. Petersburg in 1768 to inoculate the Empress Catherine and her son, found that in the Russian empire alone two millions of people died from small-pox annually. In North America the disease destroyed the aborigines. Catlin, writing in 1841, said: "Thirty millions of white men are now scuffling for goods and luxuries of life over the bones and ashes of twelve millions of red men, six millions of whom have fallen victims to the small-pox, and the remainder to the sword, bayonet or whiskey." Everywhere this Atilla of diseases swept over the earth. No one felt secure save those who had survived an attack. Kings, princesses and nobles, fair matrons and beautiful maidens, either died or were left pock-marked. Many who escaped with their lives were blind, deaf or afflicted with incurable maladies. It was not uncommon for whole villages and provinces to be depopulated. Toward the end of the last century a tribe of Eskimos, on the Labrador coast, was scattered by small-pox. After three years they returned to find that their country had "become a desert without a living soul in it." Five hundred skeletons told the story. Bernouilli computed that the disease killed fifteen millions of human beings every twenty-five years in the last century, and De la Condamine states that small-pox destroyed, maimed or disfigured the fourth part of mankind. Before a disease so contagious governments were powerless. The number of its outbreaks was dependent upon the frequency of communication between different localities. In seven years it was imported into the British Channel more than one hundred times. At the end of the century an adult person who had not had small-pox was scarcely to be found in all England.

The inoculation of small-pox in the hope of producing a mild form of the disease and securing immunity, is of very ancient date, and can be traced to several nations of the East. The attention of Englishmen first was called to inoculation by a medical practitioner named Kennedy, who, in 1715, advised against its introduction into England. It was Lady Mary Wortley Montagu, whose husband was Ambassador at the Ottoman Court, who persuaded English physicians to try inoculation. In a letter witten in 1717, she said:

"*Apropos* of distempers, I am going to tell you a thing that I am sure will make you wish yourself here. The Small Pox, so general and so fatal among us, is entirely harmless here by the invention of *ingrafting* which is the term they give it. There is a set of old women, who make it their busi-

ness to perform the operation every autumn in the month of September, when great heat is abated. People send to one another to know if any of their family has a mind to have the Small Pox. They make parties for the purpose, and when they are met (commonly fifteen or sixteen together) the old woman comes with a nutshell full of the best sort Small Pox and asks what vein you please to have opened. She immediately rips open that you offer to her with a large needle, (which gives you no more pain than a common scratch), and puts into the vein as much venom as can lie upon the head of her needle, and after binds up the little wound with a hollow bit of shell; and in this manner opens four or five veins. The Grecians have commonly the superstition of opening one in the middle of the forehead, in each arm, and on the breast, to make the sign of the cross; but this has a ver y ill effect, all these wounds leaving little scars, and it is not done by those that are not superstitious, who choose to have them in the legs or that part of the arm that is concealed. The children or young patients play together all the rest of the day, and are in perfect health to the eighth. Then the fever begins to seize them and they keep their beds two days, very seldom three. They have very rarely above twenty or thirty in their faces, which never mark; and in eight days' time they are as well as before their illness. Where they are wounded, there remain running sores during the distemper, which I don't doubt is a great relief to it. Every year thousands undergo this operation; and the French Ambassador says pleasantly that they take the Small Pox here by way of diversion, as they take the waters in other countries. There is no example of any one that has died in it, and you may believe I am very well satisfied of the safety of the experiment, since I intend to try it on my dear little son. I am patriot enough to take pains to bring this useful invention into fashion in England; and I should not fail to write to some of our doctors very particularly about it, if I knew any one of them that I thought had virtue enough to destroy such a considerable branch of their revenue for the good of mankind."

The same year her son was inoculated successfully by Maitland, the surgeon to the British Embassy, but the method was not used in England until 1721. At first it was regarded with suspicion, and so dangerous was it considered that seven criminals were inoculated in 1721 with success. The practice, however, spread slowly. The following year Maitland called attention to the spread of small-pox by inoculated persons. The occurrence of several fatalities in persons of prominence checked the practice, and strong opposition to inoculation arose among clergymen and physicians. Gradually the objections yielded to the reports of numerous successes, and in 1754, after two scions of royalty had been inoculated, the Royal College of Physicians issued this declaration:

"The College having been informed that false reports concerning the success of inoculation in England have been published in foreign countries, think proper to declare their sentiments in the following manner, namely: 'That the arguments which at the commencement of this practice were urged against it have been refuted by experience; that it is now held by the English in greater esteem and practiced among them more extensively than ever it was before; and that the College thinks it to be highly salutary to the human race.'"

Inoculation was finally prohibited.

A Text Book on Diseases of the Eye. By HENRY D. NOYES, A. M., M. D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College, etc. Second and revised edition, illustrated by five chromo-lithographic plates, ten plates in black and colors, and 269 wood engravings. A Octavo, pp. xvii–816. New York: William Wood and Company, 1895.

Doctor Noyes' small treatise on the eye, published in Wood's Library of Standard Medical Authors, in 1881, was the predecessor of the first edition of this text-book which appeared in 1890. The second edition, now under discussion, followed five years later, and is marked by a number of improvements, many of which concern the text while others involve the mechanical execution of the work. The writer was in the office of Professor Snellen, of Utrecht, in 1890, when Noyes' book had just arrived. In answer to our inquiry, Professor Snellen said: "Noyes' book is excellent, but too bulky." That edition was printed upon very thick paper, and was too heavy to be used with ease. By printing the work upon a thinner paper the publishers have been able to add nearly 100 pages of text without increasing the size of the volume. The arrangement of the present edition is the same as that first issued and is a logical presentation. First is a brief account of the anatomy of the eye, its physiology, the use of the ophthalmoscope, and the detection and correction of errors of refraction. The second part takes up the diagnosis and treatment of ophthalmic diseases. In the present edition the subject of binocular vision and its disturbances has been amplified and improved by the addition of those parts of cerebral anatomy and pathology which are pertinent to the subject. Several new figures (Nos. 64, 67, 68, 69, 71, 73, 74, 75, and 76) taken from the works of Edinger, Starr, Foster, Zehender and Henle, and several pages of text form a welcome addition to this part of the book. In the first edition the legends accompanying the diagrams of different forms of astigmatism were incorrect. These are now correctly labeled. The chapters on granular conjunctivitis, sympathetic ophthalmia, glaucoma, cataract, and hemianopsia, have been rewritten. Under the head of diseases and injuries of the orbit much new material has been incorporated, and a new plate (Plate B) has been added.

We wish to protest against the barbarous method of abbreviation to which Doctor Noyes is given. Thus, on page 541, we notice that a well-known journal is named: *Annales d'Oculistique* and in the next sentence it has become shrunken into *Ann. d'Oculist.* This and other faults of contraction, abbreviation and quotation, lessen the attractiveness of an excellent book.

On the whole, we must acknowledge that Doctor Noyes has given us an excellent text-book, a safe guide to the practitioner, and a treatise which correctly represents the present advanced state of ophthalmology. The publishers have done their work thoroughly well. JAMES MOORES BALL.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on Treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by Judson Daland, M. D. (Univ. of Penna.), Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania; Director of the Stetson Laboratory of Hygiene; Fellow of the College of Physicians of Philadelphia; J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to and Lecturer on the Principles and Practice of Medicine at the Charing Cross Hospital; David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume I. Sixth series. 1896. Royal 8vo, pp. xii–344. Philadelphia: J. B. Lippincott Co.

The publishers of "International Clinics" deserve the support of the profession for their enterprise in placing the latest teachings of our great clinicians within the reach of every physician. The volumes of "International Clinics" contain a mass of valuable literature in a permanent and useful form. The present volume—that for April 1896—contains lectures by forty-four gentlemen. The lectures are distributed under the headings of Treatment, Medicine, Neurology, Surgery, Gynecology and Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology and Otology, and Dermatology. In the short space accorded to book reviews we can do scarcely more than mention a few of the many excellent lectures contained in this volume. Especially noteworthy are the lectures on Treatment of Palpitations of the Heart, by A. Ernest Sansom, M. D., F. R. C. P., Physician to the London Hospital; Treatment of Puerperal Fever, by A. H. Freeland Barbour, M. D., F. R. C. P. (Edin.), Assistant Physician to the Royal Maternity Hospital of Edinburgh; and Use of Atropine in Eye Diseases, by E. Treacher Collins, F. R. C. S., of the Royal London Ophthalmic Hospital. Under the head of Medicine the contributions of Sir T. Grainger Stewart, M. D., of Edinburgh, on Asthma, and that on Tubercular Meningitis, by Edward Neusser, Professor of Internal Medicine in Vienna, are of great importance. Professor Potain, of Paris, has written on Extracardiac Murmurs, and Thomas Harris, of London, has given an excellent lecture on Indurative Mediastino-Pericarditis. One of the most valuable articles it that on Tumor of the Brain, with Double Nasal Hemianopsia, by J. H. Eskridge, M. D., of Denver. The lecture on Skiaskopy, by W. V. Würdemann, M. D., of Milwaukee, is a clear and complete one, illustrated profusely. We cannot enumerate many other meritorious lectures which are contained in this excellent volume.

The last, but not least important, article is that on Eczema of the Hands, by our own A. H. Ohmann-Dumesnil.

This calls to mind the fact that only a few Saint Louis men have contributed to "International Clinics." The list consists of Doctors Robert Barclay, Louis Bauer, G. Wiley Broome, Emory Lanphear, H. H. Mudd, A.

H. Ohmann-Dumesnil, and the writer. We would respectfully call the attention of our readers to the fact that this city has dozens of able men whose work will compare favorably with that of the clinicians of other cities, domestic and foreign, and they should not hide their light.

In conclusion, we wish to call attention to the excellent mechanical execution of the volume. A point which is worthy of emulation by some other publishers is this: the Lippincotts do not burden their books with twenty or thirty pages of advertising matter bound with the volume.

CORRESPONDENCE.

"THE MEDICAL SOCIETY AS AN ADVERTISING MEDIUM."

To the Editor of the Iowa State Medical Journal:

The editorial with the above caption, published in the April number of the JOURNAL, appearing, as it does, in the official organ of the State Society, seemingly places the members of that body in the position of opposing the attendance of out-of-State men at its meetings.

I do not think that the profession of this State care to be placed in that light. If an honorable and dignified organization, like the Iowa State Medical Society, cannot invite men of international reputation, such as Professors J. H. Etheridge, of Chicago, and J. M. Baldy, of Philadelphia, to address it, without either detracting from its dignity or reflecting upon the professional ability of its members, then these things must rest upon a slender footing indeed.

The profession of this State, however, is, I believe, composed of men of broad and liberal views, who recognize the value to themselves and to their clientele of the value of the free interchange of thought and professional experiences. No one who listened to Dr. Etheridge at Creston, or was present at the presentation and discussion of Dr. Baldy's paper at Des Moines, will deny that both added to the pleasure and profit of the respective meetings. If there were more of these features and less politics at the meetings of the State Society, the ostensible objects of its yearly convocations would be more clearly subserved; and if the writer of the article in question, who has not succeeded in concealing his identity, would realize this fact and occupy less of the time of the Society with the consideration of the ethical disturbances constantly occurring in his bailiwick, he, too, could add something to the interest of the meetings.

There is something more to the modern practice of the healing art than its commercial considerations, and when the narrow-minded views embodied in the article in question are given publicity in the duly accredited organ of the State Medical Society, it is time that the members of that body, who wish to be considered an exception to the class who want to be measured by the standard thus set up, filed their protests.

There are other and more reprehensible mediums of advertising than the Medical Society.

Respectfully yours,

FRANK W. PORTERFIELD.

No. 1 West Fifth St., Atlantic, Iowa.

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

ST. LOUIS, MO.

CHAPTER X.

SEXUAL JURISPRUDENCE.

Question. What sexual matters are likely to become the subject of legal investigation?

Answer. 1. Sexual Life, Puberty, Climacteric.

2. Monstrosities.

3. Sexual Malformation and Deformities.

4. Impotency.

5. Sterility.

6. Eroticism and Aneroticism.

7. Dyspareunia.

8. Virginity, Defloration, Chastity.

9. Pregnancy, Superfœtation, Superfecundation, Extra-uterine Fœtation.

10. Parturition.

11. Marriage.

12. Divorce and Annulment of Marriage.

13. Legitimacy, Paternity, Bastardy, Affiliation.

14. Abortion, Miscarriage, Premature Labor.

15. Rape, Indecent Assault, Age of Consent.

16. Sodomy and Unnatural Sexual Crimes.

17. Indecent Exposure of the person.

18. Venereal Disease.

19. Prostitution.

20. Live Birth, Infanticide, Baby Farming.

SEXUAL LIFE.

Question. What is the duration of procreative life in the male?

Answer. From puberty on to old age indefinitely, the age limit differing in each individual.

Question. What is the duration of procreative life in the female?

Answer. From puberty to the climacteric, usually a period of about thirty years.

Question. What is meant by puberty?

Answer. Those changes produced in an individual under the influence of the development of the reproductive function.

Question. At what age do these changes generally begin to show themselves?

Answer. Usually between the thirteenth and sixteenth year, but they have been known to show themselves very early and very late in life, and may remain latent altogether.

Question. What are the signs of approaching puberty in the male?

Answer. 1. Increase in the size of the sexual organs.

2. The awakening of sexual desire, accompanied by erections and secretion of seminal fluid, containing living spermatozoa.

3. The appearance of pubic hair.

4. The appearance of beard, and hair on breasts and under arms.

5. Change in voice, the tone becoming deeper and falling from alto to base or tenor.

6. The skeleton assumes the distinctive male type.

7. Certain mental changes by which the boy becomes a man.

Question. What are the signs of approaching puberty in the female?

Answer. 1. Increase in the size of sexual organs, especially the breast.

2. The appearance of the regular monthly flow of blood.

3. The awakening of sexual desire.

4. The appearance of pubic hair and hair under the arms.

5. Certain changes in bodily con-

formation by which the skeleton assumes the distinctive female type.

6. Certain mental changes which mark the girl's development into a woman, among which may be mentioned bashfulness, yet a growing desire for male society.

Question. What signs normally mark the termination of sexual and procreative life in the male?

Answer. 1. Gradual weakening of sexual desire.

2. Gradual decrease in the frequency and power of erections.

3. Gradual dissappearance of living spermatozoa from the seminal fluid.

4. Cessation of seminal emissions.

5. Increase in size of the prostate gland.

Question. What is the age at which these changes appear?

Answer. About the sixtieth year, though living spermatozoa have been found in the seminal passages of men ninety years of age.

Question. By what names is the termination of procreative life in the female known?

Answer. Climacteric, menopause, change of life, dodging period, etc.

Question. What signs mark the approach of the climacteric?

Answer. 1. Irregularity in the time of the monthly flow.

2. Irregularity in the quantity of the monthly flow.

3. Cessation of ovulation, and gradual atrophy of the ovaries, uterus and tubes.

4. Usually marked alterations in sexual desire, evinced by increase or decrease.

5. Increase in the quantity of abdominal fat.

6. Changes in the skin, which is apt to become swarthy, the subcuteneous fat becoming gradually absorbed, leaving the surface more or less wrinkled.

7. Certain nervous manifestations, due to auto-intoxication, from the retention in the system of those elements of the blood usually eliminated by menstruation.

a. Hot flashes and blushing.

b. Vertigo and dizziness.

c. Ringing in the ears.

d. Numbness and formication.

e. Accumulations of gas in the abdominal viscera, which may give rise to the idea that the woman is pregnant.

f. Possibly the formation of cancerous growths.

Question. At what age do these changes usually make themselves manifest?

Answer. Generally about the forty-fifth year, though they have been known as early as the thirtieth year and as late as the seventieth. It is possible that menstruation may continue through life. As a rule, the earlier puberty the earlier the climacteric.

Question. What external circumstances seem to advance or retard these developmental changes of puberty and the climacteric?

Answer. 1. Warm climates tend to advance puberty, it frequently appearing as early as the tenth year.

2. Cold climates seem to retard puberty, it frequently delaying as late as the twentieth year.

3. Idleness, fast living, high feeding, and erotic influences tend to advance development.

4. Normal exercise, proper diet and seclusion from erotic influences tend to delay development.

5. Over-work, poor feeding and bad hygienic surroundings tend to delay development.

6. Pathological conditions of the nervous system may advance or delay development, according to the locality affected and the nature and severity of the lesion.

7. Pathological conditions of other portions of the body than the nervous system generally delay puberty and advance the climacteric.

8. Disease of the sexual organs themselves tends eventually to destroy function.

Question. What two sets of laws have their foundation in the facts relating to the time of appearance and duration of procreative life?

Answer. 1. All laws which tend to limit the age for entering the marriage contract.

2. All laws which tend to limit the age at which a woman may give her consent to sexual intercourse.

Question. What legal points depend for their solution upon a knowledge and recognition of these facts?

Answer. 1. The possibility of a woman having at any time been or being now pregnant.

2. The possibility of a woman having recently or at any time given birth to a child.

3. The probability of a man having been the father of a child at either extreme of life.

4. The probability of guilt in case of alleged rape or other sexual crime.

MONSTROSITIES.

Question. Into what two classes may all forms of malformation be divided?

Answer. Monstrosities and anomalies.

Question. What is a monster?

Answer. A deformity or malformation extending over the entire body.

Question. What is an anomaly?

Answer. A deformity of a single organ or set of organs.

Question. Into what two classes may all monsters be divided, for purposes of study?

Answer. 1. Monstrosities of a single individual.

2. Monstrosities composed of twins joined together.

Question. To what are monstrosities due?

Answer. To disturbances of development occuring in embryonic life.

Question. What factors are prominent as causes of developmental disturbance?

Answer. 1. Hereditary influence.

2. Injuries received during gestation, not sufficient to cause the death of the embryo.

Question. At what period of intrauterine life must these disturbances occur in order to produce malformation?

Answer. Previous to the end of the third month, for the fœtus is perfectly formed by that time and cannot be changed. The earlier the injury occurs, the more serious the malformation.

DEFORMITIES OF SINGLE INDIVIDUAL.

Question. What three classes may comprise all the deformities of the single individual?

Answer. 1. Deformities by excess, where the number or size of organs is increased.

2. Deformities by deficiency, where the parts are absent or decreased in size.

3. Deformities by perversion, where the organs are changed in shape or location.

Question. What causative factor is most prominent in bringing about deformities by excess or perversion?

Answer. Hereditary influence, either direct from a parent or by atavism, *i.e.*, reversion to an original type.

Question. What causative factor is most prominent in bringing about deformities by deficiency?

Answer. The accidental disturbances of fœtal life.

Question. Of what nature are these disturbances?

Answer. *a.* Disease of the fœtus.

b. Disease of the uterus.

c. Disease of the placenta.

d. Inflammation and adhesion of amniotic membranes.

e. Concussion of the uterus and separation of the membranes.

f. Hemorrhage into the membranes.

g. Loss or deficiency of liquor amnii.

h. Bendings and twistings of the embryo.

i. Mechanical pressure on the embryo from tumors of the uterus and other causes.

j. Extra-uterine fœtation.

k. Inflammation of any organ or part of the fœtus, arresting its development.

l. Small-pox, scarlatina and syphilis of mother, transmitted to the fœtus.

Question. What are some of the most prominent and noticeable manifestations of deformity by excess?

Answer. 1. Duplication of hands or feet, very rare.

2. Poly-dactylism, or duplication of fingers or toes, very common.

3. Poly-masia, or supernumerary breasts or nipples, frequent both in men and women.

4. Extra ribs, occasionally seen.

5. Extra teeth, frequently seen.

6. Duplication of thoracic or abdominal organs, occasionally seen.

7. Excessive growth in one organ or part, out of all proportion to the remainder of the body, occasionally seen.

8. Excessive growth of the entire body, as observed in giants.

Question. What two sub-classes comprise all the cases of deformity by deficiency?

Answer. 1. Arrest of development and growth in entire body.

2. Arrest of development in a part or parts of the body.

Question. What are the most important manifestations of arrest of development in the entire body?

Answer. 1. Fleshy mole, a retrogressive alteration in the fœtus and fœtal membranes, produced by hemorrhage into the membranes.

2. Hydatidiform mole, a cystic degeneration of the fœtus and its membranes.

3. Lithopædium, a calcareous degeneration of the dead fœtus.

4. Microsomia, a dwarfing of the entire body.

Question. How may deformities of a part of the body be classified?

Answer. 1. Want of development in the head.

a. Acrania, absence of the cranial vault, bones and integument, and usually the brain. The orbits are incomplete and the eyes project from the top of the head, giving the individual the appearance of a toad or frog.

b. Anacephalia, absence of the brain.

c. Cyclopia, both orbits grown into one; eyes absent, single, double, or undeveloped.

d. Hare-lip and cleft palate.

e. Aprosopia or cleft face, from the non-closure of the upper branchial arch.

f. Agnathia, absence of lower jaw.

g. Fissure in the neck from non-closure of the lower branchial arch.

2. Want of development in the trunk.

a. Spina bifida, well known.

b. Clefts in thoracic wall, anterior or posterior.

c. Acardia, no heart.

d. Clefts in abdominal wall, usually combined with absence of bladder.

e. Want of union between the alimentary canal and anus, causing complete closure of alimentary canal.

3. Want of development in the limbs.

a. Amelus, entire absence of limbs.

b. Peromelus, arms and thighs perfect, but fore-arms and legs stunted.

c. Phomelus, hands and feet sessile.

d. Micromelus, all limbs perfectly formed, but abnormally small.

e. Anabrachia, without arms.

f. Anapus, without legs or feet.

g. Sympus, lower limbs joined together, feet may be absent, and the extremity furnished with toes.

h. Syndactylism, webbing of certain fingers or toes.

i. Adactylism, absence of fingers or toes.

Question. What are the most important forms of altered or perverted development?

Answer. 1. Transposition of thoracic or abdominal viscera from side to side.

2. Club feet.

a. Talipes varus.

b. Talipes valgus.

c. Talipes equinus.

d. Talipes calcaneus.

e. Talipes equino, varus and valgus.

f. Talipes calcaneo, varus and valgus.

3. Sexual malformations and deformities. (See Chap. XI.)

TWIN MONSTROSITIES.

Question. How are twin monstrosities classified?

Answer. 1. Double monsters, which are formed from the union of homologous twins of nearly equal development.

a. Where the twins are united by a cartilaginous band extending between the two ensiform appendices.

b. Where the twins have the same chest cavity, together with a double heart, the circulation being synchronous in both.

c. Where the trunks of the twins are united side to side, the chest and abdominal cavities being in common, the respiration as well as the circulation being synchronous, and a portion of the alimentary canal being in common.

d. Where the union of the trunks is combined with a coalescence of the joining arms or legs, or both.

e. Where the twins are united by the trunk and head, or by the trunk, head and limbs; thus forming a complete side to side union. Here the viscera of one twin is transposed to the opposite side from the normal.

f. Where the heads are united and the bodies separate below.

g. Where the upper or lower limbs are united, the heads and bodies remaining separate.

h. Where the two bodies are united in one, below; resulting in an individual with two heads, two sets of upper extremities, a common chest and abdominal cavity, one pelvis and one set of lower limbs.

i. Where the bodies have coalesced at the top, resulting in an individual with two sets of lower extremities, two pelves, two sets of genital organs, a common abdominal and chest cavity, one pair of arms and one head.

j. Where the twins are united more or less completely front to front, illustrating all the degrees of union shown in side coalescence.

k. Where the twins are united more or less completely back to back, spinal and cerebral cavities being in common. Where the heads are so joined, the individual is said to be Janus headed. This form of union may exhibit all the degrees of coalescence shown by side unions.

l. Where the twins are united end to end, either by heads or pelves. In the latter case, the legs are absent or project from the sides of the body, either coalesced or separate.

2. Fœtus papyraceus, where homologous twins feed from the same placenta, the circulation of which is so arranged that one twin obtains more than its proportion of nourishment, thus starving and weakening the other. The growth of the victim is arrested and death takes place, the

body being retained in a macerated and compressed condition until the birth of the healthy child.

3. Parasites. These are monstrosities which result from the unequal development of twins. The feebler twin remaining attached to the healthy one and obtaining its nourishment through this attachment, as a parasite. These may be found attached to any part of the body of the healthy child, and developed to all degrees of perfection, from a mere marking of a few features or a few sessile limbs to an almost fully formed fœtus.

4. Inclusio-fœtalis, where one twin, more or less completely developed, becomes inclosed in the body of the other. These may be found in any part of the body of the healthy child and in any degree of development, from a few bones, teeth, or wisps of hair, as seen in dermoid cysts, up to a fully formed fœtus.

Question. What questions are to be solved in making an examination of a monstrosity for legal purposes?

Answer. 1. Is the offspring in the shape of mankind?

2. Was the child born living?

3. If living, is it capable of sustaining existence?

4. Is it single or double?

5. If double, is there separate conciousness?

6. If double, is it possible to seperate them with safety by a surgical operation?

7. Is it a male or a female?

8. If female, is it capable of intercourse or maternity?

9. If male, is it capable of intercourse or paternity?

10. If dead, what was the cause of death.

Question. Of what legal importance are these questions?

Answer. 1. Every living product of conception, if in the shape of mankind, has social and civil rights.

a. It may inherit and transmit property.

b. It may sue in the courts and be sued.

c. It is entitled to personal protection at the hands of the law, and cannot be killed, hurt or neglected, and its parents are bound to give it proper nourishment and care.

2. The father may obtain tenancy by courtesy in the mother's estate on account of this child.

3. The mother may in some States become entitled to a larger share in the father's estate on account of this child.

4. The question of potency, paternity and maternity generally figures in divorce suits.

Question. What sort of monsters would generally be considered as not being in the shape of mankind?

Answer. 1. Such remains of conceptive products as are found in dermoid cysts.

2. Such degenerated products as fleshy and hydatidiform moles.

3. Such bones and degenerated soft parts as are usually found in cases where an extra-uterine fœtation, instead of proving fatal, has become encysted and partially absorbed.

Question. What cases are generally considered as not capable of continued existence, though born alive?

Answer. 1. Children expelled before the age viability.

2. Acranial and anacephalous monsters.

3. All double monsters, who have internal viscera in common.

4. All monsters who have faulty visceral development.

THE TRI-STATE MEDICAL JOURNAL

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CLINICAL LECTURE.

LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION.

By G. FRANK LYDSTON, M. D., of Chicago,

Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Attending General Surgeon to the Militant Hospital; Lecturer on Criminal Anthropology in the Kent College of Law.

[CONTINUED FROM JULY ISSUE.]

IT is probable that epilepsy bears about the same relation to masturbation as does insanity, in that a primary predisposition is necessary in order that the cause may be operative in its production. That individuals subject to epilepsy are apt to have an attack when under the influence of sexual excitement is unquestionable. It is related of the first Napoleon—who, as is well known, was subject to epilepsy—that he experienced a paroxysm every time he attempted copulation.

Phthisis, as a result of masturbation and sexual excess, has been dwelt upon mainly by quacks, but to a certain extent the subject has received attention on the part of reputable and scientific physicians. It is probable that the important relation between abuse of the sexual function and consumption has been overrated. I think that instead of consumption

being a frequent result of masturbation, that the peculiar nervous organization of the phthisically disposed is very often the predisposing cause for sexual excess and masturbation. Satyriasis and nymphomania are occasionally observed as phenomena in the clinical history of cases of phthisis. A case is related of a woman who in the last stages of consumption was continually importuning her husband to have intercourse with her, the sexual impulse being particularly strong a short time before death. In a general way, I think it may be accepted that the relation of masturbation and sexual excess to pulmonary consumption is precisely the same as would be that of any other condition involving a nervous waste and vital depression. Anything which will lower the resisting power of the individual is a predisposing cause of phthisis. The fact that quite a proportion of consumptive males have been known to have been masturbators is a very weak argument, for the reason that the majority of males masturbate more or less at some period of their lives.

The effects of masturbation and sexual excess upon the heart are very similar to those produced by mental excitement, nervous shock, liquor, and the excessive use of tobacco. It is probable that palpitations are the most frequent manifestation of sexual excess. It has been alleged that hypertrophy and dilatation may result from over-use of the sexual apparatus. This, however, is open to serious question; the capacity for experiencing the orgasm will probably become exhausted long before such results could occur.

Some writers, following Lallemand, have dwelt much upon a cold clammy feel of the palms as a characteristic of the masturbator, but this sign is apt to lead one into error. The only relation that I can see is, that inasmuch as most boys masturbate, it is safe to assume that the boy with the moist and clammy hand-clasp is addicted to the practice like the rest of his fellows. That the assumption would be apt to prove correct in the majority of cases is no proof of the accuracy of the sign. It would be as logical to assume that a boy masturbates because forsooth he is a boy, a very safe rule, by the way.

The peculiar frame of mind characteristic of the adult masturbator is very aptly illustrated by the confessions of Rousseau. This unfortunate individual, although one of the most renowned literati and philosophers of his day, not only confesses in his writings that he habitually practiced masturbation, but delineates in a most impressive and striking manner the influences which contributed to the excitation of his sexual passions and shows in an all too vivid manner the attractiveness which the imagination of youth finds in the disgusting habit. In the words of an eminent writer upon the subject Rousseau seemed to be "utterly unaware that the miserable mental and bodily condition, which he goes on to describe and to deplore, was in any way the natural consequence of the habit. This, perhaps, is not to be wondered at, since the very medical men he consulted did not attri-

bute his maladies to the real cause. Modern experience, however, and the confessions of recent patients who have sinned and suffered—as Rousseau did—give only too clear an explanation of his ailments."*

In the case of Rousseau the habit of masturbation was undoubtedly due primarily to sexual precocity. His description of his mental condition is a most masterly one. Acton in quoting it pronounces it the most valuable and accurate that he ever read.† An apology is hardly necessary for repeating it.

"One might say that my heart and my mind do not belong to the same person. My feelings, quicker than lightning, fill my soul; but instead of illuminating, they burn and dazzle me. I feel everything. I see nothing. I am excited, but stupid; I cannot think except in cool blood. The wonderful thing is that I have sound enough tact, penetration, even finesse, if people will wait for me. I make excellent impromptus at leisure; but at the moment I have nothing ready to say or do. I should converse brilliantly by post, as they say the Spaniards play at chess. When I read of a Duke of Savoy who turned back after starting on his journey to say, 'In your teeth! you Paris shopkeeper!' I said, 'That is like me!'

"I find the same sluggishness of thinking, joined with the same vividness of feeling, not only in conversation, but even while I work. My ideas arrange themselves in my brain with incredible difficulty; they circulate there dully; fermenting so as to excite me, beat me, give me palpitations; while in the midst of all this emotion I see nothing clearly. I could not write a single word—I must wait. Insensibly this great turmoil calms down—the chaos disentangles itself—each idea puts itself in its own place, but slowly and after long confused agitation. Have you ever seen the opera in Italy? While the scenes are being changed, there is a disagreeable and prolonged disorder in these great theaters; all the decorations are mixed up; you see pulling and hauling everywhere, which is positively annoying; everything seems on the point of tumbling down; however, little by little, all gets arranged; nothing is wanting, and the spectator is astonished at seeing an exquisite scene succeed the long tumult. Almost the same kind of proceeding goes on in my brain, when I want to write. Could I have waited, and rendered in all their beauty the images thus painted there, few authors would have surpassed me.

"Hence arises the extreme difficulty I find in writing. My MSS., scratched, blotted, mixed up, undecipherable, attest the labor they have cost me. There is not one of them I have not had to transcribe four or five times before sending it to press. I have never been able to do anything, pen in hand, with a table and my paper before me. It is out walking among rocks and woods, at night in bed, while lying awake, that I write

* William Acton: "The Functions and Disorders of the Reproductive Organs."
† Op. cit. p. 101.

in my brain; it may be imagined with what slowness, especially for a man without verbal memory, and who has never in all his life been able to learn six lines by heart. There are some of my sentences that I have turned and re-turned during five or six nights in bed before they were in a state to be put on paper. Hence I succeeded better in works that require labor than in those which must be written with a certain degree of readiness, like letters—a kind of composition of which I have never been able to catch the proper tone, and the effort at which is misery to me. I never write a letter on the smallest subject which does not cost me hours of fatigue, or if I want to write at once what occurs to me, I can neither begin nor end; my letter is a long and confused verbiage, hardly to be understood when read.

"But not only is it a labor to me to express, but also to receive, ideas. I have studied men, and I think I am a tolerably good observer; yet I can see nothing of what I do see. I can hardly say that I see anything except what I recall; I have no power of mind but in my recollection. Of all that is said, of all that is done, of all that passes in my presence, I feel nothing, I appreciate nothing. The external sign is all that strikes me. But after a while it all comes back to me. I remember the place, the time, the tone, the look, the gesture, the circumstances—nothing escapes me. Then, from what has been done or said, I discover what was thought, and I am rarely deceived.

"If I am so little master of my mind while alone, it may be conceived what I must be in conversation, where to speak, *a propos*, one must think at the same time and at a moment's notice of a thousand things. The mere idea of so many proprieties, of which I am sure to forget at least one, is enough to intimidate me. I do not even understand how a person can dare to speak in company—for at each word one ought to pass in review every one that is present; to be acquainted with all their characters and know their histories, in order to be sure to say nothing that can offend any. Certainly those who live in the world have a great advantage here; knowing better what not to say, they are surer of what they do say; yet even from them slips many an unfortunate speech. Imagine the condition of a man who falls into it all from the clouds; he can hardly talk with impunity for a minute. In a *tête á tête* there is nothing disagreeable, which I find worse. I mean the necessity of talking constantly; if you are spoken to you must answer, and if nothing is said you must take up the conversation. Thus unendurable constraint alone would have disgusted me with society. I find no burden more intolerable than the obligation to speak at once and constantly. I do not know if this arises from my mortal aversion from all subjection; but it is quite enough to be obliged to speak to make me infallibly say something foolish.

"What is more fatal is that, instead of knowing how to hold my tongue when I have nothing to say, it is just then that, to pay my debt as quickly

as possible, I have a mania for talking. I try in a hurry to stammer, promptly, words without ideas, only too happy if they mean nothing at all. In trying to conquer or hide my inaptitude, I seldom fail to display it.

"I believe that this is the real explanation of why, though I am not a fool, I have often passed for one, even with persons capable of judging; all the more unhappy because my physiognomy and my eyes promise something better, and my failure makes my stupidity all the more shocking to others. This detail, which a peculiar instance has suggested, will not be useless to any one who follows it. It contains the key of many extraordinary performances of mine, which have been attributed to an untamed humor which I do not possess. I should relish society as well as any one, if I were not sure to exhibit myself, I do not say only to advantage, but as something quite different from what I am. The system I have adopted of retirement and writing precisely suits me. No one would ever have known, from my presence, what I was worth; no one would ever have suspected it."

The intellectual brilliancy displayed by this celebrated victim of masturbation is certainly paradoxical, if the elaborate descriptions given by some writers of the mental hebetude and stupidity resulting from the vice are to be believed. The explanation, however, probably lies in the fact that Rousseau being a man of extraordinary intellectual power was not affected as would be the average individual. The mental vagaries, inaptitude for mental concentration, sluggishness of thought, shrinking from society, hypersensitiveness, disturbed emotional equilibrium, and morbid introspection described by him are matters of every day experience to individuals who have indulged their vicious propensities in the direction of masturbation to any great extent. They are, moreover, phenomena, which, if the truth were known, have been experienced even by those who have succeeded in breaking off the habit and have apparently suffered no permanent evil results from it.

In a general way, sexual excesses bear the same relation to physical and mental disturbances as does masturbation. *The results differ chiefly in degree, and physical impairment from sexual excess is more frequent than is generally supposed.* Rarely indeed is our attention called to such serious consequences as may result from masturbation, but there are numerous reasons which satisfactorily explain this. The general belief is, that the extent of sexual indulgence is to be limited only by physicial capacity, as it is unlike masturbation in being harmless under all circumstances.

Railway Surgeon.—Dr. Truman W. Miller, of Chicago, has been appointed chief surgeon of the Grand Trunk Railway in this country, vice Dr. Donald McLean, resigned.

ORIGINAL ARTICLES.

HYPNOTISM.*

By FRANK J. TAINTER, M. D., of Warrenton, Mo.

Mr. President, Ladies and Gentlemen, and Brother Practitioners:—

THE facts of hypnotism, or somnambulance, are no longer denied by scientific men, and it is at this date admitted by the medical profession as a therapeutic agent worthy of note.

The word "hypnotism" is derived from the Greek word "hypnos," meaning sleep. Mesmer, a great German scientist, is given the credit of being its originator. While it had been used from time immemorial, it was, like at this period, used by many unconsciously.

Many so-called "miraculous cures," so nicely related in the Scriptures, are claimed, by the exponents of the evolutionary theory, to have been performed by hypnosis.

Charcot, Richar, Braid, and Heidenheim are recipients of many just dues for their theories and practical usages to which this wonderful agent can be applied.

Mesmer held that this peculiar force was produced by fluidic emanations which he called "animal magnetism." Dod believed in an electrical theory, holding that the body was ensheathed in an electrical belt four inches thick, which he believed could be short circuited in the medulla by making downward passage at the back of the head, thus cutting from the brain its electrical force, which he held is necessary to keep it in its active state.

Many other theories, equally as ridiculous, had a great following in the early history of mesmerism—but at this date the theory of Heidenheim seems to be the universally accepted one. He held that the hypnotic state was nothing more than artificially produced somnambulism, brought on by suggestion.

During the subsistence of the hypnotic state, certain portions of the nervous system become utterly insensible to external impressions, while the other portions acquire an exalted degree of sensibility.

The subject of the experiment can then by special methods be placed in such relations with other individuals that his surviving sensations, mental processes, and physical actions shall be no longer regulated by his own volition, but by the will of another. Of course not all subjects reach such a susceptibility, especially so the first time they are put under the influence. However, frequent repetitions of hypnotic exercises render the subject still more susceptible. The subjective mind is constantly amenable to control by the power of suggestion.

*Read before the Linton District Medical Society, May 5, 1896, at Mexico, Mo.

It is held by Hudson that we have two minds—an "objective and a subjective." "The subjective mind takes cognizance of its environments by means independent of the physical senses. It is the seat of the emotions and the store-house of the memory. It performs its highest function when the objective senses are in abeyance." In other words, it is that intelligence which makes itself manifest in an hypnotic subject when he is in a state of somnambulism.

"The objective mind takes cognizance of the objective world. Its media of observation are the five physical senses; its highest function is that of reasoning."

The subjective mind is incapable of inductive reasoning and is always amenable to control by the power of suggestion. The subjective mind of man never sleeps, but a person's subjective mind is as much under control of his own objective mind as the objective mind of another.

I hold that it is not necessary for another to suggest things to place one in an artificial condition. One's own subjective mind can suggest things to the objective, thus making a person both operator and subject.

A phenomenon which occurred to me at the time I was writing this article will probably bring out the point I am trying to make in this connection.

After thinking much upon the subject of catalepsy and other stages of hypnotism, feeling somewhat exhausted, I lay down to take a little nap. After sleeping some time, I awoke sufficiently to realize that I was rigid and in convulsions. I was conscious of my surroundings but unable to relieve myself from the state. My room-mate, who is a prominent business man of this city, being present in the room at the time, became very much alarmed at my condition. After trying to arouse me and failing, he deemed it wise to send for medical aid. However, I roused myself before he had taken any action, feeling much fatigued. My room-mate's story of my condition and actions during the state were in exact accordance with my remembrance.

I am not a subject of catalepsy or hystero-epilepsy, but have often been put in a cataleptic state by different hypnotists. The sensations in this case were similar, and I have no doubt are identical to a hypnotic catalepsy differing only in the fact that one was brought on by suggestion from the subjective mind of another, while in this case my subjective mind had been worked into such a pitch that it was capable of suggesting the state itself, hence the condition.

A person can not be hypnotized against his own will. Contrary auto-suggestions account for many of the failures of operators. The more passive a subject, the easier he will be to hypnotize.

However, many experiments along the line of auto-suggestions may be carried out with people who are ignorant of mesmerism— for example, I shall relate a case to make more emphatic that point.

Mrs. E., widow, aged 37, subject to nervous dyspepsia, was given a solution of gentian and nux vomica. After taking four doses out of an eight-ounce solution, she came back with the complaint: "Doctor, I quit taking that medicine; I know it is not going to do me any good; I could tell that after taking the first dose." After arguing with her a while I persuaded her to continue the medicine, telling her she had not taken enough to make any marked change. She consented. After two weeks she returned with the same story—that she knew it was not going to do her any good. I asked her how she knew it, to which she replied: "I know what that medicine is, I have taken it before, but it never did help me. An old midwife prescribed it many years ago; it is 'cherry seed tea,' and you cannot convince me differently." I allowed her to think as she pleased, giving her the privilege of making an analysis if she so desired. I told her I would give her something else from which she would get immediate results. My prescription was as follows:

℞ Ext. Nux Vomica ..... gr. x
Ext. Gentian ..... ℥ij
M. ft. masse et div. caps No. xxx.
Sig. One before each meal.

The same prescription as above, but in capsule form.

Ten days later she comes with a history of being entirely relieved and feeling better than she had for many days. I doubt much but what there is a doctor here present that has not had similar cases.

A subject of mesmerism must be a person of intelligence. I have observed those of the best minds and the strongest will-power make the best subjects. It is impossible to hypnotize a fool, a drunkard, or an idiot.

It has been proved by Charcot, by his experiments with hystero-epileptics at La Saltpêtrière, that people possessing nervous temperaments make the best subjects. It is impossible to make a subject do that which he had previously decided not to do. Upon one occasion, while experimenting with some younger boys, there was one who was the happy possessor of a new suit of clothes. Being afraid that he would do something that would be detrimental to the luster of his new garments, he cautioned me not to make him do anything that would soil them, as, for instance, taking a dry bath on the floor—a trick which I made him do many times.

After making him do many things, I suggested that he was out in a river and the boat was leaking, and that he must swim or he would drown. He folded his arms and dropped backward, as if drowned; I was unable to get the subject to attempt to swim.

I have repeated this many times and have failed to make my subjects do things which their minds were not predisposed to. You readily recognize the safe-guard one can throw around himself, and the much talked of danger of hypnotism is practically rendered harmless. There never was,

and never will be, a patient who can be made to commit a crime in an hypnotic trance, unless his objective mind was predisposed in that direction. I do not believe that a pure-minded, virtuous girl, one whose life and thoughts have been pure, could be imposed upon by some villain while she was in an hypnotic state, for that at the very greatest danger line would not be any more likely to occur than by the use of any of the anæsthetics.

I may say a few words in regard to the length of sleep, before touching upon its practical points in medicine.

That there are many who have never awakened from the hypnotic sleep —as you have heard through newspaper reports—is false. The sleep always ends spontaneously, if the patient is left to himself. A word from the operator is often sufficient to arouse him. It is wise to come to some agreement with the subject as to how long he or she wishes to sleep. You will find that the patients will awaken at the time agreed upon.

By suggesting to my patient that he would go to sleep at a certain hour and sleep a short time, he invariably would. Upon one occasion, while giving a little parlor exhibition, one of my best subjects was absent. He was a bashful boy and could not be persuaded to come. Knowing that he was in a drug store a short distance away, I wrote these words on a piece of paper: "When you read this you will become sleepy, you will grow sleepier; why, you are actually asleep." I signed my name to this note and sent it to him. The suggestion was sufficient to put him to sleep. The boys who took the note returned, telling me that he was sound asleep and could not be aroused, and asked me to go down and awaken him, which I did without much difficulty.

That hypnotism is a valuable therapeutic agent there is not a shadow of a doubt. It has been used successfully in minor surgery. There are cases on record where patients are said to have had their limbs amputated while in that state. It has especially become useful to the dentist. I have upon several occasions hypnotized subjects for dentists while they performed some dental operation. Upon one occasion, a live nerve was extracted from the roots of a tooth; the other operations were extractions.

In medicine its largest scope of use is in the treatment of nervous diseases. I shall relate one case which I believe is entirely cured by auto-suggestion, before I take up the modes.

Mrs. S., widow, about forty-five years old, history of cataleptic fits since fourteen years of age, occurring once a month at her menstrual period. She gave no traumatic history. I was called to see her on the 15th of January. I found her in a rigid semi-concious condition. After reviving her, I inquired if she was conscious of the approaching attack. She replied in the affirmative.

Thinking this a good case to utilize hypnotic powers, I impressed very emphatically upon her mind that all attacks were attended with more or

less danger, and that she had it in her power to ward off such attacks. I suggested that she roll her eyes upward and make pressure upon the temporal arteries with her thumbs, giving her some pathology and etiology to correspond with the treatment. She has had occasion twice to try it and reports success. I have not had occasion to see her recently, but whether her abortive seizures are due to the fact that she has reached her climacteric or she has in the meantime called in my much admired colleague, Dr. M., I cannot say. I, under the circumstances, am led to attribute the results to hypnosis.

Many methods of inducing the hypnotic state have been employed by different experimenters. The greater number consists of tiring the retina by gazing upon a brilliant or luminous object. The hypnotic state can be produced as effectually by excitation or sudden surprise of the auditory nerve. Various impressions, through gentle friction or pressure upon different regions of the body, all are capable of producing sleep. An appeal to the imagination or even the attempt to abnegate the possibility of vigorous thought by directing the thought to some trivial thing.

After a subject has been mesmerized a few times, merely suggesting sleep is sufficient to produce it. The oftener a subject is mesmerized, the more susceptible he becomes, as I have already stated. In many operations, such as lancing boils, carbuncles, removing wens, etc., it is not necessary to put the patient fully into the hypnotic state; simply auto-suggestions will suffice, being the primary stage of hypnotism.

I recommend to you, brother practitioners, to allow this valuable aid to occupy a large corner in your pill case and use it often, especially at the bedside, where your patient is suffering from insomnia and your chemical hypnotics are contra-indicated.

I repeat once more that you should bear in mind these facts, in order to be a successful operator:

First, the more passive the subject, the more susceptible he will be to suggestions.

Second, that it is impossible to hypnotize a subject against his will.

Third, and last, that you cannot hypnotize a fool, a drunkard, or an idiot.

Military Tract Medical Association.—The regular annual meeting of the Military Tract Medical Association will be held in the city of Peoria, on the 15th and 16th of October next. The officers are: President, L. C. Becker, Knoxville; First Vice-President, C. W. Horrell, Colchester; Second Vice-President, E. L. Mitchell, Roseville; Secretary and Treasurer, O. B. Will, Peoria. The Military Tract Association has the reputation of not doing things by halves, and this occasion will mark another mile-stone in its existence.

A CASE OF ULCER OF THE STOMACH TREATED WITH PROTONUCLEIN,

By N. H. KIRBY, M. D., Concord, Mass.

MY experience with protonuclein has been limited, but in all the cases in which I have used it I have been quite successful, especially so in the one which is reported below:

Mr. J., aged twenty-four, farmer by occupation, became one of my patients some two years ago, when he presented the following symptoms: For a long time he had been troubled with inability to retain food. There would be severe pain in the stomach, which would be increased by the presence of food and by pressure over region of stomach. This pain would be relieved by vomiting; sometimes there would be vomiting of blood; bowels constipated, tongue covered with thick coating. I tried several remedies at that time, such as pepsin, bismuth, nitrate of silver, aromatic powder, Carlsbad salts, mustard over epigastrium, etc., together with a strict diet. This course of treatment was followed by temporary improvement, but no real improvement. He finally left me, utterly discouraged, and came under the care of other physicians, but with apparently no better success. About two months ago he returned to me very much reduced in flesh, his weight having dropped from 160, his normal weight at the beginning of the trouble, to 124 pounds, and every symptom increased in its severity, and so weak and exhausted was he that he was unable to follow his usual occupation.

I straightway put him upon a strict diet again, and gave him protonuclein, grs. iii, every four hours, to be taken religiously. From the beginning of the administration of protonuclein he began to improve, and gradually to retain food. The pain began to diminish and he gained fully ten pounds in weight within the first two weeks. His appetite and strength returned, and, in fact, there was rapid and permanent improvement. At the present time of writing he has ceased taking protonuclein, and when I last saw him he was apparently well.

Change of Date.—The date of the meeting of the Mississippi Valley Medical Association has been changed to September 15, 16, 17 and 18, in order to permit the members and their families to take the opportunity to make a pleasant tour through the Yellowstone Park, so justly celebrated as the wonderland of America.

Prominent resident members of the Association in St. Paul and Minneapolis are formulating plans for the special Yellowstone Park excursion trip, to leave on the evening of September 18th, arriving in Mammoth Hot Springs in the Yellowstone Park about noon on the following Sunday, and devoting the following five days to the wonders of this remarkable region, returning to St. Paul Sunday, September 27th.

BOXING THE EARS,

By O. F. BAERENS, PH. G., M. D., of St. Louis,

Late Clinical Adjunct to the Chair of Rhinology, Otology and Laryngology, St. Louis College of Physicians and Surgeons.

THIS practice, although dating back to the dark days of barbarism, is still in vogue with a great number of parents, teachers and other folks who feel it their duty to administer corporal chastisement. Ears are so much easier of access than the gluteal region that the average corsetted schoolmarm hardly ever cares to run the risk of "bustin' suthin." Very often something does "bust," and that is the eardrum of the victim. During the out-door season when base and foot ball are indulged in, it frequently happens that the clinician is called upon to repair the damage which a stray ball has wrought. Boxing gloves and fisticuffs furnish a liberal amount of cases also. I will present to the reader a few which have come under my observation recently. The first was that of an old lady, who looked her nationality (Irish). She informed me that her husband while under the influence of liquor, had struck her on the left ear, completely stunning her. It was some hours after the injury had been inflicted that she applied for treatment. Examination showed œdema of auricle, with some effusion of blood behind the membrane, which was ruptured slightly. Pain was complained of; some vertigo. She was given an anodyne, and was ordered to apply cold compresses. After several days, pus was seen to exude, puffiness over the mastoid, and a temperature of $99\frac{4}{5}°$. A mild lukewarm antiseptic solution was used to irrigate the canal, and a small quantity of boric acid insufflated. Saline laxatives were ordered; she was told to continue cold compresses, and return next day for treatment, which she did. This treatment was continued for nearly two weeks, when the inflammation had subsided, as no discharge was to be seen. Perforation healed of its own accord. The second case was similar in character, being that of a pugilist. Pain was the most prominent symptom; some vertigo; also autophonia, accompanied by a serous discharge, which, later on, became purulent in character. In this case, there was less œdema over the mastoid. Same line of treatment was followed out, a good result following. Case 3—Lottie F., aged ten, struck by her teacher with a fourth reader for some offense or other committed by her. This little girl's ear-drum was broken, and upon her practicing Valsalva's inflation, the perforation whistle could be plainly heard. No further unpleasant symptoms followed. The perforation was closed by a small paper disc, and left to Nature, who promptly repaired the damage. Very frequently a plug of cerumen through aerial compression is driven off against the membrane, and when this occurs, there is usually a rupture of the drum. In elderly people a vigorous slap is usually sufficient

to rupture the membrana tympani, and healing is not as rapid as it would be in a more youthful person. The clinical history of almost all cases who have received blows on the ears differs generally only in the intensity of the symptoms. One symptom which, perhaps, creates more alarm than the others is autophonia, a condition in which the patient feels as though his cranial cavity contained air instead of brain. Such conditions we meet with far too often, and physicians should consider it their duty to acquaint all parents with the dangers attendant upon such a form of punishment, and they, in turn, should take the pedagogue to task who persists in venting his ire on the defenseless children by boxing their ears. Only too often are such cases neglected by parents who resort to home treatment, which is not only often of no avail but productive of much harm. The dropping of laudanum and oil for the relief of pain is generally the first thing done at home. This usually dams up the discharge, and if the secretions don't force their way through in spite of all hindrance, the internal ear becomes involved, sometimes to such an extent that the case seems almost a hopeless one. Children, as a rule, are reticent about telling of their chastisement, for fear that the stern parent may administer another, and often bear the pain with a fortitude worthy of a better cause, and the attention of the parent is not attracted to the trouble until in some accidental way the otorrhoea is discovered, when the aurist is called upon to interfere. As to treatment, a few words will suffice. In the acute stage antiphlogistic treatment is of paramount importance; cold compresses to the auricle, anodynes for the pain, lying on the opposite side of the face. In this, as in other troubles, there is such a thing as overtreating; this is to be avoided. Beware of vigorous inflation, allow the parts involved to have as much rest as possible. When a purulent discharge exists, it should have a free exit, hence no tampons; instillation of a few drops three times daily of peroxide of hydrogen, followed by gentle irrigation by means of a proper syringe, and a lukewarm mild antiseptic solution, afterwards insufflating a very small amount of boric acid. This to be continued until there is no longer any sign of a discharge; then it is a good plan to cover up the existing perforation with a small paper disc, and allow Nature to see the thing out. This brings me to the close of my paper, and while I do not believe that I have brought out anything new or startling, this was not my purpose, my sole object being chiefly to direct your attention to this class of injuries, hoping that by so doing some one might be benefited.

American Association of Obstetricians and Gynæcologists.—The ninth annual meeting of the American Association of Obstetricians and Gynæcologists will be held at the Hotel Jefferson, Richmond, Va., Tuesday, Wednesday and Thursday, September 22, 23 and 24, 1896.

THE LARGE PUSTULAR SYPHILIDE,

By A. H. OHMANN-DUMESNIL,
Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine of St. Louis.

THE eruptions of syphilis, no matter what appearances they may assume or how many varieties may be presented, are always invested with a never-failing interest which is peculiarly their own. This interest is mainly due to the fact that these eruptions are protean in shape, varied in form and distribution, and variable in many characteristics. These variations are the very points which make a thorough study of them so fascinating to the student. And, furthermore, it is the polymorphous character of the eruptions of syphilis which has invested their diagnosis with so much doubt and uncertainty for the untrained and inexperienced practitioner. Another circumstance which has had a tendency to increase the confusion in diagnosis is the fact that imitativeness is one of the tendencies inherent to specific eruptions. Many of the vulgar eruptions are so closely simulated, so far as morphology is concerned, that it takes a practiced eye to note the true nature of the disease under observation and examination. Another factor in the production of confusion in the minds of those not conversant with the cutaneous manifestations of syphilis is the almost universal impression that they are copper-colored. What this implies is far from being clear, so much so that it may be looked upon as an unknown quantity. To depend upon a more or less imperfect description of a color is certainly to depend upon a broken reed; and to describe a color accurately presupposes an infallible judgment in the first place, and a most remarkably graphic power of description in the second. Besides this, the recipient of the description must be as capable of appreciating it fully. Since the majority of the dominant shades in cutaneous eruptions, with possibly a few exceptions, are merely modifications of various reds, and since they are subject to change according to the variations of the surrounding atmosphere, the age of the lesions, and the remedies which have been applied to them, it is not difficult to understand the difficulties which surround the proper formulation of a diagnosis. In syphilis there is a peculiarity in the particular red shade seen in many of the eruptions. It is very difficult to describe, and yet is sufficiently well-marked to form a reliable guide to the trained eye. This red is one which painters would describe as lacking in "fire." It may be best described, perhaps, as a red which is deficient in yellow admixture, and in which a darkish tinge is very slightly apparent. It is the so-called "cut-ham" color of the older writers. This dark shade is so slight, however, that its appreciation is no easy matter, but the method by contrast will show it very well. To effect this, it is only necessary to establish a comparison with the bright, bril-

liant red of an inflammatory skin disease, such as papular eczema, or pustular acne in the acute stage, or, perhaps, as good as any is the areola surrounding a vesicle of either herpes zoster or herpes simplex. No colored pictures are adequate unless very well made, and then even a comparison must be made between the best representations of typical examples. The observation of cases, and close attention to colors to which a good memory for shades is added, is the only satisfactory method of acquiring this art. When once the eye is well trained a luetic eruption may be recognized at a glance in nearly every case, there being, of course, exceptional cases in which further methods of research are positively necessary.

Another point of some importance in the diagnosis of syphilitic eruptions is a proper appreciation, not only of the form and configuration of individual lesions, but of their peculiar methods of distribution and grouping. Whilst the lesions resemble those of the ordinary eruptions, they differ in small particular essentials, which, to the superficial observer, may seem to be but trifles, yet are sufficiently important to arrest attention and to be of the greatest help in the matter of differentiation. Among some of these may be mentioned a tendency to desquamate very slightly, or a sudden flattening of the lesions. There is also observed a slight desquamation at the periphery of certain forms that form what was so well described by Biett and which has long been known as Biett's collarette. Not to continue a description of these generalities, a description of three varieties of one form of syphilitic eruption will be taken up, and will no doubt prove of more value in gaining a proper appreciation of the peculiarities of the large pustular syphilide.

The large pustular syphilide is so-called in contradistinction to the small pustular syphilide, the varioliform and the acneform syphilides. It is an eruption in which the lesions vary considerably in size, from a large pin's head to a silver dime or quarter dollar. It is observed in the secondary stage of the disease, and when the lesions are small it is a comparatively early manifestation, whereas when they are large, it is a tardy or late eruption. This, however, is not a hard and fast rule, but the usual condition observed in the majority of cases. The pustules either appear as such from the very beginning, or as papules, which soon become invested with a pustular character, and then can no longer be distinguished from the unaltered pustular eruption. The lesions are discrete in their distribution, or disseminate. In the latter event two or more may coalesce, but the large lesion thus formed does not present the characteristics of one which has grown to the same size. It is not unusual to observe an entire eruption which never presents the feature of the coalescing of lesions.

The parts which are involved are not particularly special. Both the chest and back will be affected in the same individual, and the limbs will suffer on both their flexor and extensor surfaces. The face and scalp are

by no means exempt from the eruption. It is by no means rare to observe the eruption limited to the flexures of the joints, as is well shown in Figure 1. It is a fact which has been noted that in this class of cases the erup-

FIG. 1. Large Pustular Syphilide.

tion is limited to these localities. In the case figured here the syphilis was of rather recent date, and it will be observed that the pustules are of a comparatively small size for a large pustular syphilide. As may be seen,

the patches are limited to the flexures, the axillæ and folds of the knees presenting similar groups. Such a distribution is alone sufficient to awaken suspicion as to the true nature of the trouble, more especially when we note that the element of pain does not enter to any degree of importance. The coloration would also tend to lead to closer inquiry, not to mention the history. A peculiarity which may be noted in the case shown in Figure 1, is the fact that there are more lesions on the left side than on the right. Those who read a previous article on rupia will remember the same peculiarity in respect to the lesions. This is a singular coincidence which I have had occasion to note in a number of cases of syphilitic eruptions. It might, perhaps, be well to observe this matter more closely, as it might be a point in the consideration of the characteristics of syphilitic eruptions and their distribution. There is no doubt whatever that if such a peculiarity exists in the method of dissemination of these eruptions, some cause will be found for it and thus a new chapter added to the pathology of syphilis.

Another form of the large pustular syphilide is characterized by very large lesions which have a tendency to be flat. It does not usually occasion much disturbance in the subject thereof, and it is very apt to puzzle the observer in making a proper diagnosis. The lesions are rather superficial in character, but they are prone to involve a comparatively large area. The pustules flatten quite early in the course of their evolution and are soon emptied of their contents. This latter is followed by the formation of comparatively thin crusts which are not strongly adherent. This form of syphilide may occur in a short time after the development of a cutaneous syphilitic eruption; or, it may not make its appearance until a comparatively late date or even as remotely as at the transition period after the full development and course of the secondary stage. The form of pustular syphilide under consideration is impetiginous, but the fact that it is pretty uniformly distributed, as well as the presence of the remains of former syphilides, and the history of the case will do much in the way of clearing up any doubts which may exist in regard to it. Each lesion is surrounded by a more or less dark areola, and an infiltrated and somewhat raised border, as shown in Figure 2. Pressure on the lesions elicits but little pain, whilst the separation of crusts discloses a sluggishly granulating base covered with a thin pus mixed with serous fluid.

A third form of the large pustular syphilide, which will be considered here, is not infrequently noted in those, more especially, who have not devoted a sufficient amount of attention to this disease. In this form large conical pustules form, and they have a marked tendency to break down rapidly. The suppuration is apt to keep up for a long time, and whilst but a few lesions are present at first, fresh crops appear from time to time, until a large number are present at one time in various stages of evolution. The pustules may begin as such, or they may be due to purulent transformation

of papules. During the course of their evolution these large pustules flatten and their contents are emptied. A crust forms, which is of a reddish-brown or blackish-brown color, and which is somewhat adherent, but will, in the course of time, drop off spontaneously. In some localities suppuration, with

FIG. 2. Large Pustular Syphilide.—Impetiginous Form.

attendant destruction will continue almost indefinitely. There are localities where perspiration is free, or where moist, opposing surfaces are in constant contact, such as in the axilla. On the other hand, if a pustule be exposed to irritation, especially of a mechanical nature, ulceration of a more

or less marked character and quite troublesome in nature will result. A reference to Figure 3 will show a number of such lesions. Here it may be noticed that the destruction is crateriform and the edges are markedly infiltrated, bearing a close resemblance to a furuncle or boil. The color and

FIG. 3. Large Pustular Syphilide.—Furuncular Form.

pain are not heightened, however, as in the latter, and moreover, there is not present the well-known "core" always observed in a boil. In form, it must be confessed, the lesions bear a great resemblance to each other—their mode of evolution is as distinct and different as well. It is not an unusual

thing to see a large pustular syphilide, which has been subjected to irritation for a long time, finally result in an ulcer of greater or less extent and depth. If several contiguous pustules have been under this irritating influence an ulcer of considerable size, and oft-times destructive in its nature, will result and perhaps prove very refractory to the best directed treatment.

In all of these forms of the large pustular syphilide a certain amount of destruction of tissue takes place, and as a natural result when the healing process has established itself a scar is observed. This scar is always a pigmented one of a rather marked brownish color, which eventually clears up. The bleeding process begins at the center, and slowly spreads towards the periphery, which is the last to lose its pigmentation. On this account it is not rare to observe pigmented rings in those cases which have not completely decolorized. The conclusion of the process is marked by a more or less thin scar, somewhat more depressed than the surrounding skin. In the disappearance of the pigment a peculiar fact may be noted. It would seem that not only the excessive amount of pigment deposit disappears, but the process becomes intensified in the way of carrying off with it the normal pigment of the skin; as a result the scar has a marked white color, which shows up in contrast with the unaltered skin and suggests vitiligo when not closely examined.

The treatment of the large pustular syphilide is that which should be directed against secondary syphilis in general. Whilst it is essential that such general treatment be active, it is none the less necessary to give a good and efficient local treatment in order to obtain a satisfactory result. It is not alone necessary to indulge in active remedies and doses, but care should be exercised in the selection of remedies, as some not only are not efficient, but become actually deleterious from the untoward effects which they produce. It is for this reason that iodide of potassium or sodium are contra-indicated in the pustular syphilides, and that mercurials are of especial value. A good working formula to use is the following which will be well borne by patients, both male and female, and it is one which will produce effects very rapidly:

℞ Hydrargyri bichloride ..... gr. vi
Ammon muriat ..... gr. xij
Syr. Sarsaparillæ Co.
Tinct. Cinchon. Co.
Aquæ destillat ..... aa ℥ij
M. Sig. Teaspoonful in water after each meal.

When the patient begins to exhibit the effects of the mercury, in the way of a slight stomatitis, or tenderness of the gums, the remedy should be suspended for a week or ten days. After the expiration of this time treatment may be resumed by the administration of the following:

℞ Mercauro ..... ℥j
Sig. Ten to fifteen drops in water after each meal.

In the administration of either remedy the more water used the less irritating it is and the better the effects which will be produced. The mercurial fetor which is observed is easily disguised by perfumed candy troches.

The local treatment of the large pustular syphilide should by no means be neglected, as it is of capital importance in the treatment of the lesions. Care should be exercised in the application of mercurials, as they are absorbed to a greater or less extent and their use may necessitate a diminution or even entire suspension of the internal treatment. Cases should be carefully watched and treated in conformity with the changes observed. To begin with, the pustules should be opened and their contents permitted to escape. If crusts are present they are best removed by the application of oil, which will cause them to separate rapidly. Having, by these means, removed such complications, it is absolutely necessary to have a clean surface to work on and this is best assured by the use of a bichloride of mercury solution. Whilst a 1-1000 strength will act fairly well a 1-500 will be found much better and need not be applied so frequently. Here again care must be taken not to use the solution too lavishly as aseptic water may be employed first as liberally as may be needed, and the bichloride subsequently in a very sparing manner. Having thus cleansed the field, permanent applications are next to be made and none is superior to an ointment which is simply applied and not rubbed in.

If it should happen that pus and detritus still remain, despite the use of water and bichloride solution, peroxide of hydrogen is to be liberally applied, so as to effect the complete removal of the products of the process. Then proceed as outlined above. For an ointment the following will be found of advantage:

℞ Hydrang. oleat. 5 per cent..... ℥ij
Ung. hydrarg. cinerei..... ℥vj
M. Sig. Apply once a day sparingly.

Should this produce mercurial intoxication it may be omitted and a powder used instead.

One of the peculiarities observed in connection with the large pustular syphilide is that during the process of repair, moisture will show itself exuding from and accompanying the lesions. In such a case any ointment which has been used will have to be abandoned and a powder which has drying qualities used instead. For this purpose campho-phenique powder will be found to have superior advantages and act in a very efficient manner. The powder should be applied twice daily and not disturbed. If permitted to remain undisturbed the powder will form crusts, and when these drop off the lesions will be found to have healed. No fear need be entertained of pus forming under these artificial crusts if the preliminary cleansing and preparatory treatment has been thorough.

Such are a few of the broad outlines connected with this interesting syphilide. Much more could be said in connection with it, but the limitations of space forbid it.

AN OPERATION FOR APPENDICITIS FOLLOWED BY RARE COMPLICATIONS—RECOVERY.

By ROLAND HILL, M. D., C. M., M. C. P. S., Ontario, of St. Louis.

THE history of this case is interesting, not because of any peculiarity in the original condition, but because of the rare complications that followed operation. The case was an ordinary attack of appendicitis, the second that the patient had had, followed by a slow convalescence and a continued elevation of temperature.

There was tenderness at McBurney's point; a swelling could be felt in this region, and the ascending colon was evidently much thickened, as it could be distinctly outlined.

On May 29, 1896, the patient was removed to the Missouri Baptist Sanitarium and prepared for operation.

On May 31, I opened the abdomen with a view to removing the appendix or draining of an abscess, should one be found.

The appendix was found somewhat enlarged, filled with fecal matter and bound down by adhesions, but there was no sign of abscess. The diseased part was tied off with silk, excised and the stump touched with a drop of pure carbolic acid.

The case progressed as well as it possibly could until the next Friday, June 5, when the patient was taken with a severe pain in the calf of the leg, also in the left groin and along the course of the femoral and internal saphenous veins; left leg and foot became swollen. There was, however, very little elevation of temperature, it being about 100°, and the pulse was only slightly increased in frequency; no chills.

The next day patient complained of pain in left elbow, which was tender on pressure and caused distress when forearm was moved. The arm was not swollen.

Following this during the next few days there was pain in the region of the left ear (below and behind), then right ear and right elbow.

These symptoms, however, proved transient. At the outset of the phlebitis on the left leg the limb was wrapped in cotton, bandaged and elevated, and in twenty-four hours the very acute pain gave way to a severe ache. This gradually became less severe until June 12, when it was practically gone.

At the time of writing, August 13, the patient's limb is somewhat swollen and has to be kept bandaged.

I might add that the stitches were removed on June 8th and the wound was found to have healed by first intention.

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PAN-AMERICAN MEDICAL CONGRESS.

The first Pan-American Medical Congress was held in Washington in 1893. The second will meet in the City of Mexico in November of this year. Great good resulted from the first meeting, which everyone pronounced a huge success. Our Mexican friends are making elaborate preparations for the coming event. A trip to Mexico is always a novelty, and that country should be even more attractive to physicians this year than ever before. The beauties of the City of Mexico, the uniform courtesy of her inhabitants, and the high professional standing of her physicians and surgeons should cause many medical men of the North to visit our southern neighbors during November. No physician who can possibly spare the time can afford to miss this meeting, at which will be gathered the representative physicians of all America. A doctor of the United States can attend his State society, the American Medical Association, the Mississippi Valley Medical Association, or any one of numerous others any year; but the opportunity to attend the Pan-American comes but once in three years. Probably the next Pan-American will be held in South America. Those who have had the opportunity to read the transactions of the first Pan-American appreciate the scientific work done at the Washington meeting.

We understand that President Diaz will deliver an address. The Secretary of the Congress is Dr. Edward Liceaga, No. 4, Calle de San Andres,

Mexico. The American Secretary is Dr. C. A. L. Reed, of Cincinnati. Dr. Francisco Bastillos, No. 7, Calle de Tacuba, Mexico, is the Treasurer. All physicians residing in the United States and Canada who contemplate attending are requested to forward the registration fee of $5 to him, and at the same time to notify Dr. Reed.

Reduced rates will be given on all railroads. Any of our readers who desire information regarding railway rates will do well to address the following gentlemen:

Mr. C. E. Miner, Western Passenger Agent, Mexican Central Railway, St. Louis; Mr. S. F. B. Morse, G. P. & T. A., Southern Pacific Co., New Orleans, La.

A rate of one fare for the round trip has been granted by all railways in both countries.

THE CITY HOSPITAL COMMISSION.

Mayor Walbridge has appointed Doctors Charles H. Hughes and Albert Merrell members of the City Hospital Commission. The Mayor has shown himself a gentleman of excellent judgment, and the appointments are approved by almost everybody. Of course, there are a few objectors, and they are found chiefly among the professors of an antique medical college of this city. The ordinance creating the Hospital Commission was fathered by some of the aforesaid professors. They have received what they so richly deserve—non-recognition.

The ordinance was unnecessary. Everybody knew that the St. Louis Board of Health, the Health Commissioner and the Mayor were competent to deal with any and all questions concerning the hospitals belonging to the city of St. Louis. In some respects the ordinance is open to the severest criticism. For example: "All vacancies by death, resignation or otherwise shall be filled by a majority vote of the members of said Commission at a meeting of which notice shall have been given five days prior thereto."

This seems to us to give the Commission too much power, and, doubtless men less broad-minded than the Mayor's appointees would have used this ordinance to further their own interests. And again: "Said Commisson is hereby charged with the duty of formulating a scheme or plan for the construction or reconstruction and general location, distribution and management of the hospitals belonging to the city for the purpose of producing a complete, harmonious system for said institutions, and designate the direction of needed expenditures in construction or remodeling the buildings." A liberal construction of this sentence would rob the superintendents of their authority, and convert an honorable and responsible position into a mere clerkship.

In appointing Doctors Hughes and Merrell the Mayor has re-expressed his confidence in our Board of Health.

THE CAUSES OF PYONEPHROSIS.

Among the surgical diseases of the kidney pyonephrosis is of rather frequent occurrence. There are several unfortunate factors which produce this disease. Among them are congenitally deformed ureters and congenitally deformed kidneys. When the ureter is malplaced so as to open directly into the vagina or directly into the urethra, or when a kidney has two or more ureters, this kidney has very often been found the seat of disease arising through dilatation of the ureter and subsequent valve formation and infection in the pelvis of the kidney. There is also reason to believe that the congenitally cystic and the congenitally displaced kidney result first in hydronephrosis, and later in infection and pyonephrosis, with or without the formation of calculi. The congenital defects in, or abnormal mobility of, the kidney may not be great enough to be recognized and yet they may be sufficient to allow such a redundancy in the walls of the calices as to obliterate the whole or part of the pelvis of the kidney by valve formation. Although the congenital defects in the urinary apparatus may be predisposing causes to pyonephrosis, it is probable that local or general infection is an essential factor in the production of this disease. Thus we find that without any known congenital defect gonorrhœal disease extends up the uro-genital tract and gives rise to pyonephrosis, which either infects a dilated pelvis, or produces such a swelling and hypertrophy of the mucous membrane of the calices as results in partial permanent pyonephrosis through valve formation in the calix, atrophy of the kidney substance and subsequent cystic disease of the kidney. (Fenger, Chr. Annals of Surgery, June, 1896.) In other instances the disease is of a general character, such as in typhoid fever, small-pox, or scarlet fever. In these cases the germicidal action of the tissues of the body is reduced to a minimum through the primary infection and the blood currents in the genito-urinary tract are infected with pyogenic micro-organisms. It may be also that a hemorrhage from the kidney and clot formations in the pelvis results in calculous formation and subsequent infection. In other cases the tissue changes which result from a primary disease are such as to produce deformity in the walls of the pelvis of the kidney and subsequent obstruction in the whole or in part of the urinary channel.

It must not be forgotten also that traumatism is a frequent predisposing cause to pyonephrosis. Trauma comes from unusual flexion of the body, from falls and blows, from displacement of the kidney through improper dressing, for when the kidney has once passed outside its normal position it is quite apt to rotate upon its pedicle, and this results in deformity of the mucous membrane of the ureter with intermittent retention of urine, calculus formations and subsequent infection. The great fre-

quency of pyonephrosis upon the right side in women and the well-known tendency of this kidney to wander intensifies the presumption that displacement of the kidney and rotation of the pedicle is a frequent cause of pyonephrosis. BAYARD HOLMES.

THE PRESCRIBING DRUGGIST.

In modern days a hybrid has sprung up and become a thorn in the side of the profession. We have in mind the prescribing druggist—an individual only too numerous. It would seem that the profession of medicine is handicapped in many directions. The midwife kindly attends the doctor's midwifery cases, or the cases which ought to belong to the doctor; the dentist treats stomatitis, cleft palate and antral empyema; the jeweler fits glasses and prescribes for "weak eyes;" the surgical instrument dealer takes pleasure in adjusting trusses in cases of hernia; and the prescribing druggist fills any hiatus that may be left.

A wonderful man is the prescribing druggist. He is equal to all emergencies. To him diagnostic skill is given by intuition. He always can name the disease and the remedy. He prescribes for anything from corns to consumption, and the patient always feels better, or thinks he does.

What should physicians do in order to protect their rights? We believe that the prescribing druggist is amenable to the medical practice act, and unless the druggist be also a licensed practitioner of medicine, he is liable to fine for counter-prescribing. A few prosecutions and convictions would teach the offending members of a splendid profession to have regard for doctors' rights.

USE OF FORMALIN IN OPHTHALMIC PRACTICE.

Formic aldehyde is a valuable agent in certain ophthalmic diseases, particularly those of microbic origin. In hypopion keratitis it has been used with great success by James Mackenzie Davidson, of Aberdeen, Scotland, and others. He says:

"The results which I have obtained with this substance in the treatment of some diseases of the eye have been so notable that I am induced to publish this short article upon its use. The preparation I am using is Shering's formalin (which consists of 40 per cent. formic aldehyde in water, forming a stable solution, if kept in a well-stoppered bottle). One part of formalin in 2,000 or 3,000 of water is the strength which I find most serviceable. When I tried it first in hypopion ulcers it was dropped into the affected eye three or four times daily and it seemed to be of very little use, but on applying it freely every hour, I have never seen anything act so effectually in these cases."

It is probable that formalin will score its greatest triumphs in gonorrhœal ophthalmia. Recently the writer has found it of the greatest value

in this disease. It quickly lessens the discharge and diminishes the swelling. In a case of ophthalmia neonatorum, treated with boric acid as a wash and formalin as a specific antiseptic, the results were truly wonderful.

J. M. B.

A FEW ETHICAL PLATITUDES.

No code that ever was framed can make a sensible man out of a fool, nor a generous, warm-hearted, free-handed, whole-souled gentleman out of an avaricious, grasping, close-fisted savage. On the man who loves money for its own sake and for the power its possession will give him over others no law will take or code have power to charm. He will, however, be careful to see that the statute books of the country are well filled and that the society over which he presides possesses an elaborate and exclusively constructed written code.

However much we may be led to admire the principles enunciated by the ancient code of our profession, yet, we venture to say, if it consisted of the words "Unto him that hath to him shall be given, and from him that hath not shall be taken away even that which he hath," the members would not treat each other much differently from what they do now. But this is the state and nature of man. A few weeks ago we listened to a paper read by one of the prominent members of the St. Louis Medical Society, speaking in favor of a revision of the code and advising the most extreme liberality in matters of medical ethics. The writer of this article remarked to a conservative member present that things would go on about as well if there was no code at all. The conservative member replied: "No thief e'er felt the halter draw with good opinion of the law."

Alas! it is not upon the thief that the law bears heavily; nor upon the breaker of the medical code that its provisions impose a burden. If it were these alone that felt the constriction of the noose we would not say a word. The weak do not need protection but freedom to protect themselves. A man's power and right of self-defense ought never to be abridged. Self-preservation is nature's first law, and through it operates natural selection and the survival of the fittest.

When the brilliant electric lights of the profession can gaze upon their great half-page ads. in the daily newspapers with impunity, the mourners should not be crowded by preventing the tallow-dip from displaying his little four-line squib. The crimes, if crimes they are, certainly differ only in degree.

When the practitioner boasting of a prodigious reputation can collect by law enormous fees for professional failures he certainly should not be allowed to pull the code on his confrere of more modest pretentions for accepting what he can get. There is a story of a surgeon who was called upon to perform some operation of no great magnitude upon the Bishop of

his diocese. When the time for settling arrived the bill was presented for two hundred pounds. The Bishop gasped and said: "I have many curates in my diocese who do not make half that much in a year." The surgeon remarked that "he happened to be a *Bishop* in his profession." The right reverend gentleman paid the bill. We don't care very much so long as the Bishops work these little pleasantries on each other, but we pity the curates.

Pride has stalked about in rags ere now and the Pope rides a mule, but neither was any better man or any happier man while trying to appear different from what he really was.

The modern Joshua who tries to make the sun and moon stand still by waving a written code at them will find that he has not altered the face of nature one jot or tittle.

The unwritten law of Love and Truth makes the strong support the weak, the young to reverence the old, the rich to help the poor, the educated to instruct the ignorant, the well to nurse the sick, and those who see clearly to lead the blind. The written law is but a whip with which the strong may beat the weak and drive him whithersoever he will.

Which of these laws should we regard and obey, enforce with our approval and punish with our disapproval?

The first is the God Omnipotent, eternal, immortal, but invisible, sending rain and sunshine alike on the just and the unjust, and blessing all; the second is but a graven image, behind whose smoke and incense its arrogant priests may squeak and gibber, but which rides like a juggernaut chariot over the deceived and deluded devotees.

In modern medical societies the humble, modest practitioner may feast his awe-filled eyes on the velvet gloves of his ostentatious financial superiors, but in his wisdom he will view them at proper distance, for he knows an iron hand lies concealed within, with which no hand of flesh and blood can hope to successfully grapple. One of the questions that the modern medical man should ask himself is: "Am I riding on the band-wagon, or am I helping to drag it along?" If he finds the latter to be the case he had better slip back and walk in the procession. It is a life of labor, not always well rewarded, but it is an independent, helpful, comfortable existence. We will not explain this latter parable, but it will be easily interpreted.

R. C. B.

EXAMINATION QUESTIONS.

On July 7th the Missouri State Board of Medical Examiners met at Kansas City and examined a number of candidates for license to practice in the State. From among the questions we present those pertaining to chemistry, pathology, surgery, medical jurisprudence and practice of medicine.

CHEMISTRY.

1. What is the composition of water by volume and weight—how can you prove it?

2. What is the composition of atmospheric air by volume and weight—how can you prove it?

3. How does chlorine occur in nature—how obtained and how known? How would you know a chloride, a bromide, an iodide?

4. Give formulæ for obtaining sulphur dioxide—what acid does it form—test?

5. What is the symbol for boracic acid—for borax—test for boracic acid?

6. Give symbols and tests for sulphuric acid, carbonic acid, nitric acid, hyposulphurous acid, sulphuretted hydrogen.

7. How many oxides of phosphorus are there and what acids do they form—giving symbols?

8. Distinguish between the three phosphoric acids.

9. How does arsenic occur in nature? What are its oxides, and what acids do they form?

10. Give three methods for testing for arsenic.

PATHOLOGY.

1. What are the clinical characteristics of a malignant tumor?

2. Designate the different varieties of sarcomata and give their histological differentiation.

3. Describe the location, the macros and microscopic appearance of typhoid ulcers.

4. How would you differentiate—post mortem—between pneumonia and capillary bronchitis?

5. Give two methods of discovering tubercle bacilli in sputum.

6. Describe the changes which occur in the walls of an artery prior to the formation of an aneurism following traumatism.

7. Describe briefly the findings in the urine indicative of the various renal diseases.

8. Enumerate the usual varieties of vesical calculi and their composition.

9. What changes occur in arteries during the process of inflammation?

10. What is the difference between the process of repair and inflammation?

SURGERY.

1. Describe in detail the treatment of a scalp wound.

2. How would you differentiate between meningeal hemorrhage, without a scalp wound and alcoholic coma?

3. Briefly describe the investigation which you would make in a case of stab wound of the abdomen?

4. Name the more important physical and physiological properties of the peritoneum and designate their importance in abdominal surgery.

5. Describe in detail the treatment of a compound comminuted fracture of the leg.

6. What are the anatomical boundaries of an abscess of the scalp, and why is it thus bounded?

7. What are the symptoms and what is the surgical treatment of an empyema?

8. What are the symptoms of an effusion into the knee-joint, and how would you differentiate between a sanguineous and a serous effusion?

9. Describe the symptoms and treatment of an incarcerated hernia; what means would you employ to restore the circulation in a portion of intestine, the vitality of which may be in doubt?

10. How would you differentiate between a popliteal aneurism and a popliteal abscess?

MEDICAL JURISPRUDENCE.

1. What is meant by the term mechanical suffocation? What is the difference between "hanging" and strangulation? What are the symptoms of strangulation; what are the post mortem appearances?

2. Define criminal abortion; fœticide and infanticide.

3. How would you make the diagnosis of abortion during life and post mortem?

4. What sign or signs render the diagnosis of a recent delivery positive? How long after the emptying of the uterus can such a positive diagnosis be made?

(*a*) in the living?

(*b*) in the dead?

5. What are the signs of virginity?

6. What are the proofs of live birth?

7. What constitutes testamentary capacity?

8. What is the criterion of success in the treatment of a fracture?

9. Under what circumstances may a physician divulge professional knowledge on the witness stand?

10. Give the physical signs of a recent rape.

PRACTICE OF MEDICINE.

1. Give the general pathology of the second stage of pneumonia and describe they symptoms found by auscultation and percussion.

2. Differentiate between gastric ulcer and gastric cancer at the pylorus.

3. Give the symptoms and medical treatment of appendicitis.

4. What are the symptoms and what is the treatment of the various stages of basilar meningitis.

5. Describe briefly the pathology and give in detail the treatment of erysipelas.

6. Give the symptoms and the treatment of gall-stone disease.

7. What are the symptoms and signs of a pleuritic effusion and its treatment?

8. What is the pathology of night sweats associated with phthisis pulmonalis and its treatment?

9. Describe the pathology and symptoms and the general treatment of typhoid fever.

10. Differentiate between measles and scarlet fever.

ANTITOXIN IN DIPHTHERIA.

We desire to present without comment the Report of the American Pediatric Society's Collective Investigation into the Use of Antitoxin in the Treatment of Diphtheria in Private Practice:

SUMMARY.

(1) The report includes returns from 615 physicians. Of this number more than 600 have pronounced themselves as strongly in favor of the serum treatment, the great majority being enthusiastic in its advocacy.

(2) The cases included have been drawn from localities widely separated from each other, so that any peculiarity of local conditions to which might be ascribed the favorable reports must be excluded.

(3) The report includes the record of every case returned, except those in which the evidence of diphtheria was clearly questionable. It will be noted that doubtful cases which recovered have been excluded, while doubtful cases which were fatal have been included.

(4) No new cases of sudden death immediately after injection have been returned.

(5) The number of cases injected reasonably early in which the serum appeared not to influence the progress of the disease was but nineteen, these being made up of nine cases of somewhat doubtful diagnosis; four cases of diphtheria complicating measles, and three malignant cases in which the progress was so rapid that the cases had passed beyond any reasonable prospect of recovery before the serum was used. In two of these the serum was of uncertain strength and of doubtful value.

(6) The number of cases in which the patients appeared to have been made worse by serum was three, and among these there is only one new case in which the result may fairly be attributed to the injection.

(7) The general mortality in the 5,794 cases reported was 12.3 per cent.; excluding the cases moribund at the time of injection or dying within twenty-four hours, it was 8.8 per cent.

(8) The most striking improvement was seen in the cases injected during the first three days. Of 4,120 such cases, the mortality was 7.3 per cent.; excluding cases moribund at the time of injection or dying within twenty-four hours, it was 4.8 per cent.

(9) The mortality of 1,448 cases injected on or after the fourth day was 27 per cent.

(10) The most convincing argument, and to the minds of the committee, an absolutely unanswerable one, in favor of serum therapy, is found in the results obtained in the 1,256 laryngeal cases (membranous croup). In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed the mortality was 25.9 per cent., or less than half as great as has ever been reported by any other method of treatment.

(11) The proportion of cases of broncho-pneumonia—5.9 per cent.—is very small and in striking contrast to results published from hospital sources.

(12) As against the two or three instances in which the serum is believed to have acted unfavorably upon the heart might be cited a large number in which there was a distinct improvement in the heart's action after the serum was injected.

(13) There is very little, if any, evidence to show that nephritis was caused in any case by the injection of serum. The number of cases of genuine nephritis is remarkably small, the deaths from that source numbering but fifteen.

(14) The effect of the serum on the nervous system is less marked than upon any other part of the body; paralytic sequelæ being recorded in 9.7 per cent. of the cases, the reports going to show that the protection afforded by the serum is not great unless injections are made very early.

THE ACTION OF THE SOCIETY UPON THE REPORT.

At the close of its presentation, the Society voted to accept the report of the committee, and after full discussion it was decided to embody its conclusions in the following resolutions:

(1) *Dosage.* For a child over two years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in all other severe cases, 1,500 to 2,000 units for the first injection, to be repeated in from eighteen to twenty-four hours, if there is no improvement; a third dose after a similar interval, if necessary. For severe cases in children under two years, and for mild cases over that age, the initial dose should be 1,000 units, to be repeated as above, if necessary; a second dose is not usually required. The dosage should always be estimated in antitoxin units, and not of the amount of serum.

(2) *Quality of Antitoxin.* The most concentrated strength of an absolutely reliable preparation.

(3) *Time of Administration.* Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given unless the progress of the case is favorable and satisfactory.

The committee was appointed to continue its work for another year, and was requested to issue another circular asking for the further co-operation of the profession, this circular to be sent out as soon as possible in order that physicians may record their cases as they occur through the the coming year.

A SWEEPING RESOLUTION.

The Ohio State Board of Examination and Registration has adopted the following:

"*Resolved*, That on and after July 1, 1899, no medical college shall be recognized as in good standing which does not require the entrance qualification prescribed by the 'Association of American Medical Colleges' as a prerequisite for matriculation; which does not possess an adequate equipment for teaching medicine; which has not clinical and hospital facilities, based upon a minimum municipal population of 50,000, and which does not have an active faculty embracing the departments of anatomy, physiology, chemistry, therapeutics, materia medica, surgery, medicine, obstetrics, histology, pathology, bacteriology, ophthalmology, otology, gynæcology, laryngology, hygiene and State medicine, and which does not enjoin attendance upon 80 per cent. of four regular courses of instruction, of not less than twenty-six weeks each, in four different years, and which does not exact an average grade of 75 per cent. on examination as conditions of graduation; *providing* that the rule relative to population as a basis for clinical and hospital facilities shall not apply to institutions under State control, and that, by virtue of such control, receives, gratuitously, patients from all parts of the State in which such colleges are located."

It may be of interest to our readers to know what colleges are likely to be affected by this rule. Following is a list of colleges, not State institutions, located in towns which do not now have the required number of inhabitants:

NAME OF COLLEGE.	WHERE LOCATED.	POPULATION.
Medical College of Alabama	Mobile, Ala	35,000
Birmingham Medical College	Birmingham, Ala	27,000
Med. Dept. Ark. Industrial University	Little Rock, Ark	42,000
College Physicians and Surgeons	Keokuk, Iowa	17,000
Keokuk Medical College	Keokuk, Iowa	17,000
Sioux City College of Medicine	Sioux City, Iowa	29,000
Kansas Medical College	Topeka, Kan	31,000

College Phys. and Surg. of Kansas City	Kansas City, Kan	40,000
Medical School of Maine	Brunswick, Me	6,000
Dartmouth Medical College	Hanover, N. H	2,000
Leonard Medical School	Raleigh, N. C	14,000
Willamette University	Salem, Ore	11,000
Tennessee Medical College	Knoxville, Tenn	23,000
Chattanooga Medical College	Chattanooga Tenn	30,000
Sewanee Medical School	Sewanee, Tenn	1,200
Medical Dept. Knoxville College	Knoxville, Tenn	23,000
Medical Dept. Ft. Worth University	Ft. Worth, Texas	24,000
Saginaw Valley Medical College	Saginaw, Mich	44,691

We do not know how sweeping an interpretation our Ohio friends will place upon this resolution. If they decide that there shall be not more than one school to each 50,000 inhabitants they will add the following to the preceding list:

NAME OF COLLEGE.	WHERE LOCATED.	POPULATION.
National Medical College University of Georgetown Howard University Medical Department National University Medical Dept Washington Hom. Medical College	Washington, D. C (One school to 46,000 population.)	230,000
Atlanta Medical College Georgia College Eclectic Med. and Surg Southern Med. College	Atlanta, Ga (One school to 21,666 population.)	65,000
University of Louisville Kentucky School of Medicine Louisville Medical College Louisville Nat'l Medical College Hospital College of Medicine Southwestern Hom. Medical College	Louisville, Ky (One school to 26,866 population.)	161,000
Physio-Medical College of Indiana Medical College of Indiana Central College of Physicians & Surgeons American Medical College	Indianapolis (One school to 37,500 population.)	150,000
Kansas City Medical College K. C. Homœopathic Med. College University Med. College Woman's Med. College	Kansas City, Mo (One school to 33,000 population.)	132,000
Ensworth Medical College Central Medical College	St. Joseph, Mo (One school to 26,000 population.)	52,000
University of Nashville Vanderbilt University Medical Dept. University of Tennessee Meharry Medical Department	Nashville, Tenn (One school to 19,000 population.)	76,000
Hannibal Medical College Memphis Hospital Medical College	Memphis, Tenn (One school to 32,500 population.)	65,000
University College of Medicine Medical College of Virginia	Richmond, Va (One school to 16,000 population.)	32,000
Starling Medical College Ohio Medical University	Columbus, Ohio (One school to 44,075 population.)	88,150

If the Ohioans desire to do no injustice they will adopt the rule that there must be 50,000 inhabitants behind every medical school. As long as they refuse to recognize those medical colleges located in towns of less than 50,000 population (unless supported by State appropriations), they surely cannot recognize the diplomas issued by the medical schools of Atlanta, Kansas City, St. Joseph, Nashville, Washington, Louisville, Memphis and Richmond. If the Board will not recognize a school located in a town of 21,666 population, how can it sanction the work done by the three colleges of Atlanta, which city has only 65,000 inhabitants?

The making an exception of those medical colleges which are supported by State appropriations is wise. The medical departments of the State Universities of Iowa, Missouri and Michigan, for example, are located in small towns (Iowa City, 7,505; Columbia, 4,000; Ann Arbor, 11,071); yet it will not be denied that they are doing excellent work. Such schools can teach better medicine than any medical college conducted as a commercial enterprise or stock company, regardless of the size of the city. When medical professors are salaried and laboratories, hospitals and equipment paid for by the State the question of population does not count.

In conclusion, we hope that the Missouri State Board of Health will examine into and discuss the regulations of the Ohio Medical Board, and if anything can be done to prevent the founding of new medical colleges while increasing the worth and respectability of those already in existence, such action will have the active support of the TRI-STATE MEDICAL JOURNAL.

Iowa State Association of Railway Surgeons.—The third annual meeting of the Iowa State Association of Railway Surgeons will be held at Marshalltown, Iowa, October 15 and 16, 1896. The following members are chairmen of their respective committees: Arrangements, H. L. Getz, Marshalltown; Transportation, D. S. Fairchild, Clinton; Judicial, J. N. Warren, Sioux City.

M. S. M. V.—The Medical Society of the Missouri Valley will hold its next annual meeting in Council Bluffs, Iowa, Thursday, September 17th. Titles of papers to be read should be sent to the secretary, Dr. Donald Macrae, of Council Bluffs.

Elected.—Dr. H. C. Crowell, Gynæcologist to All Saint's Hospital and to the Scaritt Woman's Hospital, has been elected professor of Clinical Gynæcology in the University Medical College of Kansas City, Mo.

Finley Hospital.—Abraham Slimmer, an eccentric and wealthy Hebrew of Waverly, Ioa., has made an offer to the Directors of the Finley Hospital, Dubuque, Ioa., to endow it with $50,000, provided the citizens of Dubuque will raise an equal sum, or, if the trustees can not raise that amount, he will give $25,000 on a similar condition.

HISTORICAL SKETCH.

FRANCISCUS DE LE BOË SYLVIUS, 1614-1672.

By James Moores Ball, M. D., of St. Louis.

THE first great medical theorist of the seventeenth century was van Helmont; the second was Sylvius. Each evolved a system, each secured credence for his doctrines, each was servilely followed during life and eulogized after death; each retarded progress in correct pathology by blindly placing theory above fact, hypothesis above observation.

Born of a noble family, Sylvius was educated in medicine at Paris, Sedan, Leyden and Basel, and in his twenty-third year received his degree. After practicing for a time at Hainan, his birthplace, he removed to the opulent city of Amsterdam, whence he was called in 1658 to the first professorship of medicine at Leyden. Of fine address and unrivaled eloquence, Sylvius soon became celebrated for his lectures and drew students in crowds. Of all the Leyden faculty only Boerhaave, who lived in the following century, surpassed him in eloquence. Not content with following the old beaten paths of instruction, Sylvius re-inaugurated clinical teaching which, since the destruction of the Asclepidean schools, was first established in the year 1578 at Padua. Instead of commenting upon the works of the ancients and attempting to explain their obscure views, he brought before his class cases of disease and made the patient the text for his lecture. For fourteen years Sylvius was the great intellectual light of the Leyden medical school. The celebrity of the university in which he taught, the number of his students, and the spell of his eloquence served to give to his views an almost universal credence. He was the founder of the Iatro-chemical or Chemical system of medicine. According to his hypothesis all physiological and pathological changes are the result of chemical action. He placed great value upon post-mortem examinations and opened many bodies. He was a valiant champion of Harvey's doctrine of the circulation of the blood, and was the first professor on the Continent who dared to embrace and maintain Harvey's opinion. He contributed all in his power, and all the ascendency of his talent to spread and confirm that splendid discovery. The portrait accompanying this sketch, taken in his forty-fifth year, shows him a man of noble mien. Sylvius died in 1672 of petechial fever, which was described by him, and which had already carried off his wife and only daughter.

The system of Sylvius, known by the name of Chemiatria, may be compared to a stream fed by many fountains. Based upon few facts and many theories, it arose from the physics of Des Cartes, the pathological doctrines of Paracelsus and van Helmont; the newly enunciated views of Harvey regarding the circulation of the blood; an improved knowledge of the panaceas and lymphatic glands, the chyle and lymph vessels; the ele-

ments of chemistry, which science was struggling to shake off the fetters of alchemistical speculation; and the old doctrine of the *spiritus* or *calor innatus* of the heart. The latter, Sylvius says, he has felt with his finger. In the construction of his system, Sylvius claims to have accepted only experience by means of the senses; nevertheless, there is more theory than fact in his system, and his conclusions are drawn from experiments whose connection with the system is arbitrary and forced.

In anatomy, Sylvius made some valuable contributions. He described

FRANCISCUS DE LE BOË SYLVIUS, 1614-1672.

the os lenticulare of the cavum tympani, which, although it has been named after him, does not exist as a separate bone. He correctly described the corpora quadrigemini, as well as one of the cerebral sulci, which is called the fissure of Sylvius. He also described one of the cerebral arteries (arteria fossæ Sylvii). From the care with which he recorded the results of his autopsies we must name him one of the founders of pathological anatomy.

Digestion, according to Sylvius, takes place in the following manner: "The food is first triturated in the mouth, where it is impregnated with

saliva, a liquid endowed with great fermenting properties. Thence it descends into the stomach, and there encounters the residuum of the preceding digestion, a species of leaven very favorable to stomachal digestion, by means of which it undergoes a second preparation, after which it passes into the intestines in the form of a viscid and whitish humor. A little below the pylorus this alimentary humor undergoes a third fermentation, by the united action of the bile, pancreatic juice, and the saliva. Then the purest and most fluid part separates from the thickest and crudest part. The latter, carried on to the large intestine, takes the form and name of feces, while the other, deprived of its excrementitious matter, is termed chyle, and goes through the lacteal veins to the thoracic canal, where it unites with the lymph. The humor resulting from this union is carried to the vena cava superior, where it is mingled with the blood, and communicates to that fluid its nutritive quality. The venous blood, thus restored, reaches the right cavities of the heart, and thence goes to the left cavities by traversing the lungs. In its passage through the lungs, the blood undergoes a last effervescence which brings it to its highest degree of perfection." (*Reynoud's translation of Sylvii Praxeos Medicae Idea Nova, cap. x, §§ 2, 3, 4.*)

This account of digestion differs from that of Helmont in its greater anatomical exactness and in the absence of the archeus. Like Helmont, he believed digestion to consist in fermentation; like him, Sylvius accepted a triumvirate of the juices by whose fermentation most of the bodily functions can be explained. Digestion follows through the union of saliva and pancreatic juice with the bile, and through the fermentation of these juices. The saliva, like the pancreatic fluid, contains an acidulous salt which is very conspicuous in the lymph and is demonstrable to the taste. In this part of his theory Sylvius was assisted by the researches of De Graaf, who made many experiments upon dogs for the purpose of determining the nature and properties of the pancreatic secretion. De Graaf found the pancreatic juice constantly acid. In the bile Sylvius observed a fermentation of acid with an alkali, and from this was liberated a gas, powerful in its digestive aid. The chyle was nothing else than the volatile spirit of aliment united with a fine oil, and a weak acid, neutralized by an alkali. The blood undergoes elaboration in the spleen and reaches perfection by addition of a certain quantity of vital spirits. The bile is not separated from the blood by the liver, but already pre-exists in the circulating fluid. The bile mixes with the blood anew to be carried to the heart together with the lymph, and there it gives rise to a vital fermentation. The blood thus becomes the uniting point of all the humors of the secretions, which mix and separate without the solids taking the smallest share in the operations. In the system of Sylvius the solids were not mentioned.

The vital spirits are prepared in the encephalos by distillation, being extracted from blood which reaches the brain through the carotid arteries. The vital spirits, which resemble spirits of wine, are conducted to different parts of the body through the medium of the nerves; the spirits spread in the substance of organs to render them sensible. When distributed in the glands, the addition of the acid of the blood produces a liquid like naphtha, and this is the lymph; lymph, then, is a compound of vital spirit and acid of the blood.

In the system of Sylvius diseases were explained upon chemical principles. Sylvius first used the word *acridity* to denote that condition in which the chemical elements predominate in the humors. Acridities were the cause of disease. Now as everything acrid is either acid or alkaline, there are only two classes of disease, to-wit: those caused by an acid acridity, and those produced by an alkaline. "In the human body he saw nothing but a magna of humors continually in fermentation, distillation, effervescence, or precipitation; and the physician was degraded by him to the rank of a distiller or a brewer."

The bile, according to Sylvius, acquires different acridities; it may be acid or alkaline. If acid, it becomes thickened, and causes obstructions; if alkaline, it excites febrile heat, and the viscid vapors rising from it cause the chill with which fever begins. All acute and continued fevers have their origin in acridity of the bile. Admixture of bile with blood causes jaundice; effervescence of bile with the pancreatic juice produces almost all other diseases. Acid acridity of the pancreatic juice, with obstruction of the pancreatic ducts, is the cause of intermittent fevers, hypochondriasis and hysteria. Acid acridity of the pancreatic juice, or of the lymph, when deposited on the nerves, causes spasms and epilepsy. Gout is due to obstruction of the pancreas and lymphatic glands, accompanied with an acid acridity of the lymph. Rheumatism is caused by acrid acid deprived of a dulcifying oil. Suppuration depends on a coagulating acid in the lymph. Corrosive acids and loss of volatile spirits produce leucorrhœa. Almost all diseases proceed from acids, but malignant fevers are due to an excess of volatile salts and a too great tenuity of the blood. The vital spirits themselves sometimes cause disease, being too aqueous or effervescing too violently, or not at all. Hence the host of nervous affections, which, according to Sylvius, are derived from acid, alkaline or acrid vapors which trouble the vital spirits.

The absurdity of his theories was paralleled by the injurious effect of the treatment of Sylvius. Most diseases being caused by acid acridities, it was natural for the fantastical theorizor to prescribe alkaline remedies. Ammoniacal preparations were the therapeutic anchor upon which Sylvius built his hopes. In the administration of remedies he took no thought of symptoms, or of the remote or proximate cause, nor did he seem to know of the self-limited course of many acute diseases. He took no thought of induction, but launched forth boldly into the broad and uncertain sea of speculation. All his medicines were given to relieve a theory, not to remedy a condition. Reckless and untrue as were the doctrines of Sylvius, their adherents were numbered by thousands. Hordes of students placing a blind faith in the dogmas of the master, and were taught by him a method of treatment which must have resulted in the sacrifice of many useful lives. "If any of the patients of the iatro-chemists ever recovered their health, well might it be said that their recovery was not the consequence of the prescriptions of their physicians, but that it took place in spite of them." It is a sad commentary upon the slow growth of therapeutics to know, that, long after the splendid labors of Vesalius, Fallopius, Columbus, Eustachius and Harvey had divested anatomy of ancient errors, the practice of medicine was dominated by the followers of Sylvius. In fact, his system held sway until supplanted by that of Stahl (1660–1734.) His doctrines made

rapid progress in Germany and England, but obtained a hold less firm in France and Italy, in which countries they were opposed by the followers of ancient dogmatism.

The avidity with which the doctrines of Sylvius were received is not remarkable when we remember that disputation was the order of the day. For centuries physicians had depended upon theory and avoided experimentation. Even the few opponents of the Sylvian doctrine were armed, not with facts obtained by careful observation or correct reasoning, but with theories fully as futile and visionary as those they opposed. Circumstances combined to further the theories of the iatro-chemists. The high priest of chemistry was a master of sophistry; his college was celebrated the world over; the apparent simplicity of his pathology and therapeusis exerted a seductive power over the minds of men; and, furthermore, no one could offer any better system at that time. As recently as the preceding century, van Helmont and Paracelsus had dazzled the intelligence with their absurd speculations. The system of Sylvius was one degree better. The intellect could not break its shackles at one strong effort; it must needs free itself a link at a time.

In France, Guy Patin opposed the chemical doctrines of medicine with a fiery zeal. He waged an active warfare, and in his *Martyrologium Antimonii* he collected all the cases in which antimony, as a medicine, had been injurious. The dispute waxed so hot that in 1666, by order of parliament, all the doctors of Paris convened under the deanship of Vignon to settle the antimonial dispute. After long deliberation it was decided by a majority of ninety-two, that tartar-emetic and antimonial preparations in general are to be commended. Notwithstanding this defeat, Blondel, Guillemeau and Menjot opposed the popular verdict. In England the doctrines of the iatro-chemist were embraced by men who were expert anatomists, and who were familiar with the experimental method of investigation. The most eminent of these was Dr. Thomas Willis, who was a contemporary of Sylvius.

Resigned.—Dr. W. C. Ussery has resigned the chair of chemistry of the Marion-Sims College.

Central Missouri Medical Society.—The Central District Medical Society of Missouri met in Sedalia, August 6th, with the following physicians from abroad present: A. L. Fulton, Kansas City; W. S. Allee, Olean; F. De Vilbliss, Spring Garden; J. M. Melvin, Cole Camp; G. W. Holcomb, Clinton; O. W. Cochran, Gooch's Mill; G. Schwabe, Beaman, and Latham of California. Dr. Fulton addressed the meeting on "Appendicitis." Dr. G. H. Scott, of Sedalia, read a paper on "Diphtheria," and Dr. Latham read one on "Craniotomy." Dr. H. B. Cole, of Sedalia, reported a case of hereditary ataxia.

The following officers were elected for 1896–7: President, G. W. Holcomb, Clinton; First Vice-President, F. De Vilbliss, Spring Garden; Second Vice-President, C. W. Heid, Windsor; Third Vice-President, W. C. Overstreet, Sedalia; Secretary, A. F. Dresel, Sedalia; Treasurer, G. H. Scott, Sedalia.

EDITORIAL CHAFF.

Free Dispensaries.—We cannot discuss the question of free dispensaries, for we do not understand it. The authorities appoint certain physicians to look after the poor of the city. It is very certain that these poor will be well cared for, and it is also certain that not many who are able to pay will be treated. Now if the poor are thus provided for, what is the use of such a number of dispensaries? To relieve the work of the physicians to the poor? If so, then it would be far better to get the pay of these physicians increased and let them do all the work. Noticing a number of fairly well-dressed persons going to a certain dispensary in this city, we took occasion to ask one of the attending physicians what he did when he saw clearly that the party was able to pay? He replied: "Refuse to treat them, and ask them to my office." This is certainly exceptional; but it is not the exception to have these dispensaries treat large numbers of patients who have heretofore always paid their physician. A hundred young physicians are to-day not earning a livelihood who would be paying expenses were it not for this free work. The people are hurt by it; only a very few physicians are aided; while a large number are greatly injured.—*National Medical Review.*

Join a Medical Society.—Every medical man should be a member of a medical society. He will never know how great a man he is till some one praises him in a discussion, nor how small a man, till some pompous fellow member takes him to task; but all these frictions serve but to round and smooth a busy life, and no one can do without it who desires to be a physician in the highest acceptancy, and not a man who doctors.—*Atlantic Medical Weekly.*

Medical Pronunciation.—An unfortunate uncertainty exists among the profession of this country as to the proper pronunciation of the large class of words whose termination is—*itis*. Many prefer the continental vocalizing of *i*, giving it the sound of English *e*. The English profession and a very respectable portion of the American profession use the vowel *i* with its long English phonation—*i*. There can be little doubt of the correctness of the usage of the latter group, so long as it is English we speak, not German or French. There is absolutely no authority for a continental vocalization of *i* in English speech, for if custom is pleaded in its favor it is easily shown that custom is widely at variance and that "*itis*" has more users than "*etis*." Neither is there any uncertainty among the lexicons, whether medical or general, for with quite remarkable unanimity they give the English phonation. Expressing our sympathy for the adherents of the continental sound, we must needs leave them to their fate.—*Western Reserve Medical Journal.*

Homœopathy in Mexico.—All friends of homœopathy must have rejoiced at the anouncement of its official recognition in Mexico made in the last number of this journal.

By a decree of President Diaz homœopathic physicians have been placed upon an equal footing with the allopath in regard to all privileges and prerogatives, and naturally and properly also in regard to all the requirements of preparatory study and medical knowledge.

The creation of a National Homœopathic School of Medicine, with a five (5) years' course of study, will at once remove homœopathy and its adherents beyond the reach of the slander and ridicule which have been the staple weapons of its enemies elsewhere.

As to the curriculum presented in Dr. Fornias' letter, opinions may differ. We think that more could have been made of a course of five years without at all incurring the risk of a charge of want of thoroughness. It was, however, no doubt, thus arranged to meet certain conditions with which we in this country may be entirely unacquainted and which may call for just such a curriculum as the one presented.

We bid our brethren Godspeed, and trust that, being under government control, their college may remain for many years "one and indivisible." —*Hahnemannian Monthly.*

Cycling Versus Morphine.—In Chicago—that city of hurrying men and restless women—there were, so a popular preacher said not long ago, no fewer than 35,000 persons who habitualy took hypodermic injections of morphine to save themselves from the pains and terrors of neuralgia, insomnia, nervousness, etc. Cycling has become the rage in Chicago, as elsewhere, and the morphine takers have discovered that a long spin in the fresh air on a cycle induces sweet sleep better than their favorite drug. The result is said to be that the number of those in Chicago who take hypodermic injections of morphine is diminishing. Exercise and fresh air are known to all doctors to be the cure for half the ills flesh—and especially nervous overwrought city-bred flesh—is heir to.—*British Medical Journal.*

The Missing Link.—On November 22d Dr. Dubois from Holland delivered an address on "Pithecanthropus Erectus; a Transitional Form Between Man and the Apes," in the new building of the University of Edinburgh. Professor Sir William Turner, on whose invitation Dr. Dubois came to Edinburgh, presided, and introduced the lecturer. By order of the Dutch Indian Government Dr. Dubois conducted from 1890 to 1895 explorations in Java for a fossil vertebrate fauna, of which some remains had already been discovered many years ago by various investigators. These vertebrate remains, which were found abundantly at Trimil, on the southern slope of a range of low hills, the Kenvengs, were contained in beds of cemented volcanic tuffa, consisting of clay, sand and lappillistone, of fluviatile origin. The whole formation of the strata reached a maximum thickness of 350 metres, cut up to a depth of twelve to fifteen metres by the channel of the river Solo. The strata in question rest on beds of marine marl, sand and limestone, and are of the Pliocene age, as Professor Martin has determined. In August, 1891, Dr. Dubois, working in these strata, came upon a large number of fossil remains of various vertebrate types, and among them the bones and teeth of a great man-like mammal, to which he gave the name of "pithecanthropus erectus," because he considered it a link of connection between man and the apes. A year ago he published a provisional description of these remains, and the criticisms since then have shown much diver-

gence of opinion. Only in regard to the femur was there anything approaching unanimity of opinion, and it is regarded as human. Virchow alone has suggested that it might have belonged to an ape. For normal human proportions the cranial capacity was too small for the femur; but microcephalic skulls of the atavistic class can be relatively smaller, while the height of the body is more than that of pithecanthropus, as computed from the length of the femur. The skullcap had given rise to very great divergence of opinion, some taking it to be that of an ape, others, including Professor Cunningham, regarding it as undoubtedly human. Dr. Dubois entered into details of measurement, etc., that seemed to prove that the skull was more human than ape. He then referred to the molar tooth in some detail. All the facts and circumstances seem to Dr. Dubois to afford evidence of a form intermediate between man and the anthropoid apes. He believed the form to be a transitional one, and in the direct genealogy of man. Some discussion followed, in which Professor Cossar Ewart, Sir William Turner, and others took part. Dr. Dubios delivered an address on the same subject to the Anthropological Society in London, on November 25th.—*British Medical Journal.*

College Quacks Doomed.—The profession of Missouri is to be congratulated upon the marked improvement in the college requirements recently enacted by the State Board of Health, because it marks a definite and unequivocal defeat and ultimate extinction of the college quack. As was expected, they and their followers have manifested a turbulent opposition to the adoption and enforcement of measures which will disclose the inner workings of the schools to which they belong; but their turbulence will be disregarded and the judgment of the Board and the will of the better element of the profession respected. College quackism has received its doom in Missouri and the State Board of Health is to be congratulated upon a substantial victory.—*General Practitioner.*

Glanders in St. Louis.—Three persons of this city, a mother and two children, recently contracted glanders. One child has died and the mother is not expected to recover.

American Public Health Association.—The twenty-fourth annual meeting will be held at Buffalo, N. Y., September 15-18, 1896. The Executive Committee have selected the following topics for consideration: The Pollution of Water-Supplies; The Disposal of Garbage and Refuse; Animal Diseases and Animal Food; The Nomenclature of Diseases and Forms of Statistics; Protective Inoculations in Infectious Diseases; National Health Legislation; The Cause and Prevention of Diphtheria; Causes and Prevention of Infant Mortality; Car Sanitation; The Prevention of the Spread of Yellow Fever; Steamship and Steamboat Sanitation; The Transportation and Disposal of the Dead; The Use of Alcoholic Drinks from a Sanitary Standpoint; The Centennial of Vaccination; The Relation of Forestry to Public Health; Transportation of Diseased Tissues by Mail; River Conservancy Boards of Supervision. Upon all the above subjects special committees have been appointed. Papers will be received upon other sanitary and hygienic subjects also.

A Manual of Anatomy. By IRVING S. HAYNES, Ph. B., M. D., Adjunct Professor and Demonstrator of Anatomy in the Medical Department of the New York University; Visiting Surgeon to the Harlem Hospital; Member of the Society of the Alumni of Bellevue Hospital, of the American Association of Anatomists, etc., etc.; 134 half tone illustrations and diagrams. Philadelphia: W. B. Saunders, 1896. Price, $2.50.

This book is a valuable member of Saunders New Aid Series, and is especially designed for students.

The Stomach, Its Disorders, and How to Cure Them. By J. H. KELLOGG, M. D. Illustrated. Modern Medicine Publishing Company, Battle Creek, Mich., 1896. 8vo, pp. 370.

Doctor Kellogg is a graceful writer who knows how to convey his ideas. The present volume deals with an important class of diseases and, although a popular treatise, it is not intended to replace a medical practitioner. In the hands of intelligent laymen it will probably accomplish great good.

Obstetric Accidents, Emergencies and Operations. By L. CH. BOISLINIERE, A. M., M. D., LL. D., etc. Profusely illustrated. Philadelphia: W. B. Saunders, 1896. Octavo, pp. 381. Price, $2.00.

In attempting a review of this handsome volume, one is confronted with the difficulty of saying all that one feels there is to say, of giving expression to all the thoughts that the inspection of so rich a mine of solid information suggests, within a necessarily restricted space, while at the same time one can not entirely resist the temptation to speak somewhat of the striking personality of the man of whose life-work this book is the fruition. For his fellow-practitioners, for his former pupils at the St. Louis Medical College, for those who knew him, little needs to be said, but for those who failed of the privilege of coming into contact with Dr. Boisliniere during his lifetime there is a distinct advantage in learning something of his pure and noble character, of his broad charity, and of the high ideals of the duties of the Christian physician which he entertained and lived up to. This personality, these ideals, still live and breathe in each page of his book.

Dr. Boisliniere was born eighty years ago in the French island of Guadeloupe, where his family had for several generations been wealthy sugar planters. At an early age he was sent to France, where he not only completed his literary education, but in due time was admitted to the bar. Returning to the West Indies, his natural bent in the direction of the exact sciences soon drew him from the practice of the law, and he accordingly undertook a voyage into the then almost unexplored wilderness of the basin of the Orinoco, where he secured many specimens of interest to naturalists. Once more at home, he foresaw that the trend of political events in France

would soon result in the emancipation of the slaves in the colonies and the consequent ruin of the sugar industry, and bidding farewell to his tropical home he resolved to come to this country. In 1846, soon after his arrival, he found himself at Louisville, where he made the acquaintance of Dr. S. D. Gross, to whom he had letters. Having determined to take up the study of medicine, he completed his first course at Louisville and came to this city, graduating from the St. Louis Medical College in 1848. The next year the cholera broke out, furnishing the enthusiastic young doctor ample opportunities, not only for experience, but also for the exercise of those virtues of charity, heroism, and devotion which shone in him so conspicuously. Finding himself before long in the enjoyment of a good practice among the best families of the city, he turned his attention in an especial manner to obstetrics, in which branch he was destined to become a master. His experience in this line was enormous, he having attended during his life nearly ten thousand cases of labor. His success was such that he was called to fill the chair of obstetrics and diseases of women in his alma mater, where for many years he instructed hundreds of young men, among whom to-day are many who in their turn have become eminent as practitioners, and not a few as teachers of the art. At last, on the 13th day of January of this year, full of work and days, he closed his eyes for the last time, cheered by that hope and faith which had been as strong within him throughout a long and busy life as they were at the last.

Dr. Boisliniere possessed many talents rarely found united in one person. Gifted with a brilliant scientific mind, he was at the same time keenly appreciative of the beautiful side of life. Himself an artist and a musician, his mind preserved much of the graceful adaptability of youth long after his bodily vigor had commenced its decay. Added to this was a certain childlike simplicity, often seen where grandeur of intellect is united to that of the soul, which was strangely winning. Of his loyalty to the profession, of his kindness to its younger members, of his charity to the unfortunate and afflicted, of his unfailing courtesy and cheerfulness, much must be left unsaid. We may sum it all up by saying that there never was a physician so universally loved in this city as he.

The book is a reflex of the man. It is learned without being wearisome; rich in resources, always helpful, a very "friend in need." The chapters on abortion, on hemorrhage, on the vomiting of pregnancy, on eclampsia, and on version are particularly full of suggestion. A prominent note is the author's jealous care of the life of the child. When this is in question he is absolutely unswerving and uncompromising. No motive of complaisance or expediency weighs with him in face of the eternal principles of right. The chapter on the forceps is a classic on the subject. This we had a right to expect, as the author was the first to introduce this instrument in the West, and up to the time of his death remained "facile princeps" in its use in this part of the country. No better theoretical preparation for the use of this instrument can be had than to commit to memory the author's "rules for the application of the forceps."

We can recommend no better investment to our readers than to expend the small sum asked for this book. JOSEPH GRINDON.

Practical Points in Nursing, for Nurses in Private Practice. By EMILY M. STONEY, Graduate of the Training School for Nurses, Lawrence, Mass. Illustrated with seventy-three engravings in the text and nine colored and half-tone plates. Duodecimo, pp. 456. Philadelphia: W. B. Saunders, 925 Walnut Street, 1896. Price, $1.75.

The author explains *private* as distinguished from hospital nursing. The book instructs the nurse how best to meet the various emergencies of medical and surgical cases when distant from medical or surgical aid. A particularly valuable portion of the work teaches the nurse to improvise everything ordinarily needed in her vocation. The book is valuable and deserves an extensive sale.

A Manual of Obstetrics. By W. A. NEWMAN DORLAND, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania. With 163 illustrations in the text, and six full-page plates. Duodecimo, pp. 760. Philadelphia: W. B. Saunders, 925 Walnut Street, 1896. Price, $2.50.

So many good books on obstetrics have been issued in the last few years that at first sight any addition to the list would seem unnecessary. The present manual, however, contains so much of value, expressed so clearly, that we doubt not it will find favor with students and practitioners. The author gives a rational presentation of the subject. As most conducive to this, it has been deemed expedient to adopt a combined clinical, physiologic and pathologic basis. The language is clear, the treatment modern, and the book excellent.

Eighteenth Annual Report of the Illinois State Board of Health.—The present report is for the year ended December 31, 1895. It includes an appendix containing the official register of physicians and midwives.

The Fundus Oculi. With an Ophthalmoscopic Atlas illustrating its Physiological and Pathological conditions. By W. ADAMS FROST, F. R. C.S., Surgeon to the Royal Westminster Ophthalmic Hospital, etc. Edinburgh and London: Young J. Pentland. New York: Macmillan & Co., 1896. Pp. xviii–228. Price, $18.00.

In a beautiful folio volume of over two hundred pages of letterpress and forty-seven plates, showing one hundred and seven colored plates, besides forty-six half-tone illustrations, Mr. Frost has given the profession a work which it is a pleasure to examine and read.

The work is divided into two parts, physiological and pathological, an unusual amount of space being devoted to "physiological variations." The drawings of the fundus have all been executed from Nature by an artist, under the direct supervision of Mr. Frost, and, with the exception of one plate, were all made by the direct method of examination and by artificial light. They are of the greatest value for teaching purposes. The unit for the standard of measurement chosen is the diameter of the optic disc. To facilitate measurements of this kind, the author has designed a fundus-gauge, consisting of a rectangular network of fine wires which, when attached to an ophthalmoscope, throws its shadow on the fundus, thus mapping it out into squares.

Chapter II. (eighteen pages) is devoted to the optic disc. For the

purpose of study Mr. Frost divides the disc into three zones, the central, intermediate, and outermost zone. The author considers the disc in all its relations, explaining physiological cupping, differences of level, color, etc. Chapter III. deals with the retinal vessels and fourteen beautiful half-tones elucidate the text, in addition to constant references to the colored plates. Chapter IV. describes the macular region. Chapter V. is devoted to developmental irregularities, and under this topic the author speaks of coloboma of the choroid, opaque nerve fibres, congenital crescent of the disc, and coloboma of the disc.

Part II. is devoted to pathological conditions. Chapter VI. treats of the choroid. "The choroid, as we have seen, is extremely vascular. A comparison between the number of vessels in its tissue and the number of ciliary arteries which supply it would seem to show that its circulation must be sluggish. Both these reasons probably explain its great liability to degenerative processes and to chronic inflammation; while the large share taken by the choroid in the ophthalmoscopic picture of the fundus renders the results of these processes conspicuous. These results are usually classed as choroiditis." The author truly says that "choroiditis is, therefore, a rather wide term," and no classification of it is entirely satisfactory. He, however, recognizes two primary divisions: the suppurative and the exudative or plastic. There is no evidence of the existence of serous choroiditis, which was formerly supposed to be the cause of glaucoma and of detachment of the retina. Many of the most interesting colored plates in the book show the fundus in choroiditis. The letterpress of this chapter is of the greatest value. Chapter VII., devoted to optic neuritis, is of great interest. The table (p. 124) of conditions capable of causing optic neuritis is so valuable that we offer no excuse for quoting it:

LOCAL CAUSES.
- Cellulitus of orbit.
- Periostitis of orbit.
- Wounds of orbit.
- Tumors of orbit.
- Thrombosis of orbital veins and their tributaries, especially the *vena centralis retinæ*.
- Hæmorrhage into the nerve sheath.
- Wounds or tumors of the optic nerve.
- Wounds of the globe.

INTRACRANIAL CAUSES.
- Meningitis—*a*. Traumatic.
- Meningitis—*b*. Tubercular.
- Meningitis—*c*. Syphilitic.
- Meningitis—*d*. Pyæmic, especially from disease of the middle ear.
- Meningitis—*e*. Epidemic cerebro-spinal.

GENERAL CAUSES.
- Acute febrile diseases.
- Albuminuria.
- Influenza.
- Anæmia (all forms).
- Scurvy.
- Diabetes.
- Malarial poisoning.
- Syphilis.
- Poisoning from lead and possibly other agents.
- Leucocythemia.
- Pyæmia.
- Hereditary predisposition.

Chapter VIII. is devoted to neuro-retinitis and retinitis; Chapter IX. to optic atrophy and Chapter X. to affections of the vascular system. The

author gives short abstracts of eighteen cases (including one of his own) of new vessels in the vitreous. Plate XL., Fig. 91, shows the fundus in the author's case. Under the head of embolism of the central artery, Mr. Frost discusses the question whether a collateral circulation is ever established. It has been repeatedly inferred from clinical evidence, but it has never been proved to exist post mortem, and Mr. Frost is inclined to doubt its existence.

Chapter XI. describes the various punctate conditions of the fundus which have at different times been described by authors, such as Tay, Gunn, Nettleship, Mooren, Masselon, and others. Chapter XII. gives an excellent description of pigment changes in the retina, and also contains a brief account of the so-called "angeoid streaks" of the retina. Two excellent pictures illustrate the latter condition. Chapter XIII. deals with detachment of the retina and commotio retinæ.

We cannot close this unsatisfactory review without calling attention to the excellence of the colored plates, the clearness of Mr. Frost's language and the superb manner in which the publisher has done his work. We venture the assertion that of all the ophthalmoscopic atlases which have been produced in the last forty years Mr. Frost's book is *facile princeps*. We wish that it might be found in the library of every physician and surgeon.

JAMES MOORES BALL.

College Closed.—The Woman's Medical College of St. Louis has closed its doors. The Woman's Hospital, however, is receiving patients.

Cyst of Rectum.—Dr. Leon Straus, of this city, recently met with a case of cyst of rectum—an exceedingly rare condition. The patient was a boy aged 12, and the cyst was the size of the double fist.

Tri-State Meeting.—The eighth annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held in Chattanooga, October 13, 14 and 15, 1896. A good programme and an enjoyable occasion are promised.

The Over-Due Medical Journal.—The means sometimes devised in editing daily papers, and possibly some medical journals, run rampant, so to speak, and when an edition is late in being issued, the press breaks down, the car load of paper has not arrived, or some other trivial excuse is advanced to delude the patrons. While all of these strange acrobatical feats are going on, the proprietor or editor of the aforesaid journal is praying indulgence from an equally indulgent public on the grounds that the world is sweet; that life is worth living for, and that it is to be deeply regretted that the tax on whiskey is so high. In days gone by when publications were in their infancy; when editors were sober, honest and sincere men, apologies with special reference to the breaking of the press or an overdose of tangle foot might have passed down without a chaser. But in this broad enlightened age, when the public demand the value of their pocket books, and and when sweet nature smiles her most serene smile on the good behaving and sober public, the publication with the back number is like the cheese case without a cover in fly time.—*American Medical Compend.*

IN THE PROFESSIONAL EYE

Dr. J. Wm. Williamson,

National Surgeon of the T. P. A.

The newly appointed surgeon of the Travelers' Protective Association is Dr. J. Wm. Williamson, of St. Louis, whose likeness we present herewith. This office has been recently created, and its incumbent, Dr. Williamson, has also been the physician to Post "A" since its birth. His position is a responsible one, as all claims against the organization receive final judgment at his hands; that he can worthily meet all requirements his past record will show. Born in 1846, he is a descendant of a family of physicians, his father and both of his grandfathers having been prominent physicians in Virginia and Mississippi. His collegiate education was gained at the University of Mississippi, and he received his medical degree from the

Dr. J. Wm. Williamson

Louisville Medical College, graduating from the latter institution in 1871. Following this, he took a post-graduate course in New York City at the Bellevue Hospital.

His shingle was first hung out in Kentucky, where he practiced until 1881, when, seeking for broader opportunities in his profession, he moved to St. Louis, where he has been located ever since. Dr. Williamson was married in 1873 to Miss Maria W. Powell, daughter of Dr. Llewelyn Powell, of Louisville. Their only son, following the tendency of the family, is studying medicine at one of the St. Louis medical colleges. Since coming to St. Louis, Dr. Williamson has enjoyed a large and lucrative practice. The Travelers' Protective Association was fortunate in securing so able a man for their national surgeon.

FORMULAE.

Deaths from Chloroform and Ether.—The following is a summary of Gurlt's researches in the matter of the relative safety of different anesthetics.

Chloroform, 201,224 cases, 88 deaths, 1:2286.
Ether, 42,141 cases, 7 deaths, 1:6020.
Chloroform and ether mixed, 10,162 cases, 1 death, 1:10162
A. C. E. mixture, 5,744 cases, 1 death, 1:5744.—*Medical Index.*

For Chapped Hands and Face and Sore Nipples.—A highly recommended preparation for chapped hands and face consists of

℞ Compound tincture of benzoin ..... 10 mm.
Alcohol ..... 2 dr.
Rose water ..... 30 mm.
Glycerine ..... 1 dr.

Mix. Apply to chapped surfaces at night, after washing with soap and water and carefully drying. One application is enough—good also for sore nipples and cracked lips—try it.—*Ibid.*

Picric Acid in the Treatment of Itching of the Scrotum.—The *Revue Internationale de Médecine et de Chirurgie* for July 10th ascribes these formulæ to P. Brocq:

(1.) ℞ Picric acid ..... 4½ grs.
Vaseline, } of each ..... 225 grs.
Lanolin, }
M. S. For external use.
(2.) ℞ Picric acid ..... 15 grs.
Vaseline, } of each ..... 225 grs.
Lanolin, }
M. S. For external use.—*N. Y. Medical Journal.*

Phosphorus in the Treatment of Rickets.—In an article by Dr. A. B. Marfan, in the July number of the *Revue des Maladies de l'Enfance*, the following formula is given:

℞ Phosphorus ..... 0 15 gr.
Cod-liver oil ..... 1,500 grs.
Saccharin ..... 75 grs.
Essence of lemon ..... 2 drp.
M. A small teaspoonful may be taken daily.—*Ibid.*

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

ST. LOUIS, MO.

CHAPTER XI.

SEXUAL MALFORMATIONS AND DEFORMITIES.

Question.—Into what classes may all people be divided as regards their sexual conformation?

Answer 1. Those who are Monosexual; *i. e.*, those who are well developed and normal males and females.

2. Those who are Asexual; *i. e.*, having no distinctive sexual organs of any sort.

3. Those who are Androgynus; *i. e.*, males who through absence, concealment, or insufficient development of some organ or organs are brought to resemble the female.

4. Those who possess double sexual organs of the same sex.

5. Those who are Androgyna; *i.e.*, females who through excessive development of some organs and the rudimentary state of others are brought to resemble the male.

6. Those who through disease or mutilation have lost one or more of their sexual organs.

7. Those who are Hermaphrodites; *i. e.*, those who possess characteristic organs of both sexes, more or less developed.

Question. — How are true Hermaphrodites classified?

Answer.—A. Lateral Hermaphrodites, where the sexual organs of the male are developed on one side and those of the female on the other side.

B. Transverse Hermaphrodites, where the internal organs are of one sex and the external organs are of the opposite sex.

C. Verticle or Complete Hermaphrodites, where the sexual organs of both sexes are found, internal and external and on both sides.

Question.—Into what classes may the different forms of Androgynus be divided?

Answer. — 1. Crypsorchids, or those who are rendered Androgynus through the fact that the testicles have remained concealed in the abdominal cavity or the inguinal canals. The scrotum is often cleft and the penis absent.

2. Monorchids, or those who are rendered Androgynus through the fact that one testicle only has descended into the scrotum, the latter being cleft and the penis absent.

3. Epispadias, or those who are rendered Androgynus through the fact that the front wall of the abdomen has remained unclosed, the external genitals being absent. There is no front wall to the bladder and the ureters open onto a raw, red surface that should have been the posterior wall.

4. Hypospadias, or those who are rendered Androgynus through the fact that the pendulus portion of the urethre is undeveloped. The undeveloped penis is imperforate and the urethre opens at the base of the penis and resembles a vagina. The scrotum is also frequently cleft.

Question.—What are the usual characteristics of Androgyna?

Answer.—The clitoris is enlarged, resembling a penis, the hymen and perhaps the vagina imperforate and the labia majora adherent.

Question.—What facts in the science of embryology constitute the present theory of causation in congenital sexual malformation?

Answer.—1. All people are at one period of their embryonic life Hermaphrodite.

2. Each sex possesses rudimentary

organs which are analogous to the well developed characteristic organs of the opposite sex.

3. The differentiation of sex consists in the complete development of one set of organs, while the other set, appropriate to the opposite sex, remain in a latent rudimentary state.

4. Hermaphrodism consists in an attempt at a more or less complete development of both sets of organs.

Question.—From what embryonic structures are the internal genital and urinary organs developed?

Answer.—1. The Wolffian bodies, which form on either side of the primitive spine about the beginning of the second month of fœtal life.

2. The Genital gland, which forms by the side of the Wolffian body and subsequently becomes intimately connected with it, so that it appears to have been formed from it.

Question.—By what stages is this development brought about?

Answer. — 1. Formation of the Wolffian bodies.

2. Formation of the genital glands.

3. The union of these two bodies by the tubules of the Wolffian body becoming intertwined with and forming a mesh for the cells of the genital gland.

4. The division of this combined body into three different structures.

A. The primitive kidney, from which sprouts out a tube, eventually becoming the ureter and emptying through the elongated end of the Alantois into the Cloaca.

B. The primitive testicle, whose cells are the primitive sperm cells of the genital gland, embedded in a stroma formed from the tubules of the Wolffian body. These tubules eventually constitute the vassa efferentia and finally form the vas deferens. This duct appears even before the ureter above mentioned.

C. The primitive ovary, whose cells are the primitive ova cells derived from the genital gland. These are also embedded in a stroma formed from the tubules of the Wolffian body and whose ramifications are to be seen in adult life in the Par-ovarian or organ of Rosen-Muller. From this body also proceeds a duct, known as the duct of Muller, which, as it proceeds downward, eventually becomes the Fallopian tube, and with its union to the one on the opposite side, the uterus and vagina.

5. The gradual growth and development of these bodies, already formed, and their union with those of the opposite side when necessary.

6. The final junction of the internal urinary and genital organs with the external, which have been developing at the same time.

7. The descent of the testicles into the scrotum, in case of the male.

Question.—What are the different stages of development in the external sexual organs?

Answer.—1. The formation of the cloacal opening or the primitive anus.

2. The formation of the genital eminence, anterior to this opening, from which developes the penis or clitoris.

3. The formation of the genital groove between this eminence and the cloacal opening, on each side of which develop the labia majora, or the two halves of the scrotum, which in the latter case eventually become united in a median raphe.

4. The formation of a partition wall between the genital groove and the cloacal opening, thus forming an orifice to the uro-genital sinus. This partition eventually becomes the perineum.

5. The genital eminence developes into two folds, one on each side, which are tipped with a bulbous projection that ultimately becomes the glans penis or clitoris. In the male these two folds, called the genital folds, become united at their free edges, forming the urethre, the line of union remaining as the median raphe of the penis.

6. In the male a hard nodule oc-

curs at the anterior edge of the uro-genital sinus, which forms the prostate and receives the ducts of Muller and the Utriculus Masculinus formed from the union of the two, also the seminal ducts and the elongated end of the Alantois, which becomes the bladder.

7. In the female the genital eminence is undeveloped normally, but is seen in the clitoris. The genital folds form the labia minora. The uro-genital sinus remains open as the vestibule of the vagina and receives the ducts of Muller united into the uterus and vagina and also the end of the primitive bladder, which constitutes the female urethre.

Question.—What organs seem to be analogous in the two sexes?

Answer.—1. Penis of male and clitoris of female.

2. Scrotum of male and labia majora of female.

3. Prepuce of male and labia minora of female.

4. Spongy portion of urethre of male and urethre of female.

5. Cowper's glands in male and Bartholina's glands in female.

6. Sinus Pocularis and membranous portion of urethre of male and vagina and cervex uteri of female.

7. Vas defferens of male and round ligament of female.

8. Epididimis of male and parovarium of female.

9. Hydatid of Morgagni or Utriculus Masculinus of male and Fallopian tubes and fundus uteri of female.

10. The primitive ovary remains undeveloped in the normal male and the primitive testicle in the normal female.

11. The Mammary glands are analogous in both sexes, that of the male frequently functionating in infancy.

Question.—How are double sexual organs of the same sex, occurring in the same individual, accounted for?

Answer.—1. Double vaginæ are accounted for by the non-union of the ducts of Muller. This also may give rise to a bicornuate uterus. When this union is not effected each tube develops separately, the partition wall never becoming absorbed.

2. Double external genitals are nearly always due to an attempt at twin formation, and are accompanied by four legs or three legs, the middle one being a union of two others.

Question.—What points are of especial value in diagnosing sex in cases where doubt may exist?

Answer.—1. The external conformation of the body.

2. The growth of beard and hair on the breasts.

3. The shape of the pubic hair.

4. The prominence of the Pomum Adami and the pitch of the voice.

5. The presence or absence of menstruation.

6. The presence of seminal emissions.

7. The direction of sexual preference.

8. The presence of well developed sexual organs of either sex.

Question.—Upon what legal questions does sexual malformation have a bearing?

Answer.—1. The social standing and education of the individual.

2. The privilege of assuming Holy Orders.

3. In many States the privilege of voting.

4. Eligibility for the marriage contract.

5. The question of paternity, impotency or sterility.

6. The question of inheritance under laws of primogeniture.

Question.—What is meant by primogeniture?

Answer.—A law by which all the family property descends to the first born male child.

Question.—How do Androgyna and Androgynus individuals inherit?

Answer.—According to the sex which doth prevail.

MEDICAL PROGRESS.

Concealed Tuberculosis.—Dr. R. K. Rachford, in the *New York Medical Journal*, gives the prominent symptoms of glandular or concealed tuberculosis, as it occurs in children or youths to the age of twenty. As this affection is curable and when recovered from affords immunity against pulmonary tuberculosis later in life, we give the symptoms below:

1. Family history of tuberculosis.
2. History of exposure to contagion in infancy or early childhood.
3. Pronounced anemia without apparent cause.
4. Irregularity and early appearance of the menstrual function.
5. A scant and pale menstrual flow, followed by leucorrheal discharge.
6. Dyspnœa and pain in the side on slight exercise.
7. Proneness to catch cold.
8. Abnormal dwarfishness of the body.
9. Progressive failure of the health.
10. Neurotic disease, especially incontinence of urine. Sixty per cent. of his clinical cases with incontinence are tuberculous, and forty-five per cent. of the neurotic cases are tuberculous.
11. Dyspepsia, associated with chronic diarrhœa or constipation.
12. Enlargement of external lymphatics, accompanied by pronounced and inexplainable anemia.

Vaseline Spray in the Treatment of Chronic Nasal Inflammation.—Dr. Thomas F. Rumbold, after twenty-three years' experience, feels justified in asserting:

1. That we have no agent nearly so valuable as a local application to the upper air passages as vaseline; it is the most useful cleanser and antiseptic, and the most rapid of all solvents of abnormal nasal secretion, whether in the semi-fluid or solid form, that has ever been employed.

2. That there are no means of making local applications that nearly equal properly constructed spray-producers whose action is perfectly non-irritating while most thorough in reaching the unseen surfaces that are almost always diseased.

The objects of this treatment are: (1) To remove the abnormal secretion from the inflamed mucous membrane, and (2) to apply a warm, soothing antiseptic to every portion of the inflamed nasal passages. The treatment should be perfectly painless, and is made by instruments carrying the spray in four different directions and actuated by an air-pressure of from two to eight pounds to the square inch. In all cases, especially in those in which there is much muco-purulent discharge, a small quantity—barely enough to taste—of eucalyptol is added.—*St. Louis Medical and Surgical Journal.*

A Test for Albumen in the Urine.—Dr. Alex. C. Ewing proposes the following test for albumen in the urine:

Draw up into a small glass pipette, or tube, about an inch of the urine, let the finger remain tightly over the top, and insert the pipette into nitric acid and draw up under the urine about the same quantity of acid, when, if even a trace of true albumen be present, there will appear a beautiful line of demarcation between the acid and urine. This test is as accurate as it

is simple, and, besides, is decidedly economical and far less trouble than all others.—*Medical Record.*

Rectal Alimentation.—The following prescriptions are given by the *Journal des Practiciens* of March 14, 1896:

As a nutritive enema:

℞ Cod liver oil ..... ℥v
Yolk of one egg.
Lime water ..... ℥x

This mixture is sufficient for four or five enemata, which may be given during the course of a day. In other instances the following may be employed:

℞ Cod liver oil ..... ℥v
Yolk of one egg.
Chloride of sodium ..... gr. xl
Water ..... ℥x

This is also sufficient for four or five separate enemata.

In still other cases, where it is desirable to use the hypophosphites, and the stomach will not retain them, the following rectal injection may be employed:

℞ Cod liver oil ..... pt. j
Gum tragacanth ..... gr. xxxv
Gum arabic ..... ℥iss
Hypophos. of lime ..... gr. xxxv
Lime water, a sufficient quantity to make ..... qt. j

From four to six ounces of this liquid may used as an injection.

For dysentery:

℞ Sulphate of quinine ..... gr. x
Powdered ipecac root ..... gr. v
Chloride of ammonium ..... gr x
Tincture of opium ..... gr. xij
Distilled water ..... ℥j

Of this a small teaspoonful may be taken every four hours.—*Therapeutic Gazette.*

Metatarsalgia.—Dr. A. E. Halstead, of Chicago, contributes an excellent article upon a painful condition of the foot, supposed by Morton to be a neuralgia of the internal digital branch of the external plantar nerve. The pain in the cases reported by Morton was at first limited to the fourth metatarso-phalangeal articulation, and in cases of long standing radiating pains along the tibial nerves and into the thigh were common. Halstead says:

1. That what is known as metatarsalgia is not in the beginning a distinct pathologic entity, but rather an early symptom of static flat foot. In cases of long standing, irritation of the plantar nerves by pressure from flattening of the transverse metatarsal arch may cause an inflammation of the nerve, or even in some cases the development of neuro-fibroma.

2. That most of these cases can be permanently cured by following the treatment usually employed in beginning flat foot, *e. g.*, systematic massage, gymnastics, and the use of a properly fitted shoe, and in some cases application of a metallic brace to the sole of the foot.

In cases of long standing, where there is well marked pathologic change in one or more of the branches of the plantar nerves, resection of the nerve should be performed; the more radical operations, such as resection of the metatarso-phalangeal joint or amputation of the toe, are not indicated.—*Medicine.*

THE PUBLISHER'S DESK.

Campho-Phenique.—Dr. John S. Davis, of the Cook County Hospital, Chicago, writing under date of March 1st, 1896, says:

"I have found Campho-Phenique Powder to be indicated in dermatological practice, and especially when a dry stimulating dressing is needed. I have used the powder in quite a number of syphilitic ulcers and in ulcers of a scrofulous nature, and always with the best possible results. No dry dressing that I have ever used in my practice, in this class of disease, has given me so much satisfaction or yielded results so encouraging."

Neuralgia.—I have used Salfene in neuralgia with good results.

Sheboygan Falls, Wis. DR. C. B. CADY.

Sanmetto.—I have been using Sanmetto for several years, and find it invaluable in nearly all kidney and bladder troubles, especially those accompanied by irritation or inflammation of the mucous membranes, as well as in sexual decay and pre-senility.

Addison, Pa. WM. F. MITCHELL, M. D.

Peacock's Bromides.—I have prescribed Peacock's Bromides advantageously in a number of cases of dismenorrhœa, uterine congestion and difficult dentition in infants, and always with the most happy results.

Herbst, Ind. JAS. B. KERSEY, M. D.

Farwell & Rhines' Gluten Dyspepsia Flour.—The medical profession often find their best efforts to cure thwarted by the patient's persistent use of improper food. This is notably the case in dyspepsia and its attendant evils, arising from an acid condition of the system, as flatulence, water brash, constipation, rheumatism, gout, etc., which are greatly aggravated by the use of starchy foods. Bread, though called the "staff of life," often proves worse than a "broken reed," because of the starch it contains, which is the fermenting principle in wheat, corn, oats, rye, etc.

The "Gluten Dyspepsia Flour," made by Farwell & Rhines, Watertown, N. Y., is absolutely free from bran particles, which abound in graham and many coarse flours, and as nearly free from starch as it is practicable to make a flour which one can live and thrive upon. Write Farwell & Rhines for pamphlet giving particulars regarding this and their other reliable sanitary flours for diabetes, Bright's disease, obesity, etc.

Elixir Salicylic Comp.—Wm. R. Warner & Co.'s Elixir Salicylic Comp. is at the present time no doubt the foremost remedy for rheumatism, gout, lumbago and kindred diseases. In acute inflammatory rheumatism, two tablespoonfuls every few hours, diminished to one tablespoonful every three hours, produces desired effects.

It is a pleasant and permanent remedy, and is put up in 12 oz. square blue bottles by Wm. R. Warner & Co. It is advisable to purchase Elixir Salicylic Comp. (Wm. R. Warner & Co.) in original packages to avoid substitution of inferior imitations.

Papain (Boehringer's) is a vegetable digestive agent (the dried juice of the unripe fruit of *Carica Papaya*), having the important special property of dissolving fibrine—not so much albumen—and acting with nearly equal efficiency in acid, alkaline or neutral media. It can be used in place of, or

combined with, the highest grade pepsin. Two or four grains Papain with each meal will regulate digestion and remedy and prevent stomach troubles, especially dyspepsia. Papain is also a potent tænicide and a valuable solvent of diphtheritic membrane.

Well Deserved Praise.—An old subscriber to the *Alkaloidal Clinic*, renewing, writes:

"DEAR DR. ABBOTT:—Enclosed find $1.00 for renewal subscription to the *Clinic*. I can assure you it has been of great benefit to me in many ways and has opened a new and larger field in the successful treatment of disease."

Sample copy of the journal will be mailed on request addressed to the *Alkaloidal Clinic*, Station X, Chicago.

The Betz Bath.—It will be noticed by referring to their ad. on another page that Frank S. Betz & Co. have gone to the bottom with the price of their bath. The Betz Bath is a good thing, and despite competition, honest and dishonest, it has rapidly gained in favor—a clear case of "the survival of the fittest.

In Cases of Pernicious, Progressive Anemia in Young Girls, no matter from what cause, Dr. Mary Ward Mead, Camden, Ill., writing, says: "The arrest of development of the generative organs retards cure. I am early on the track for a speedy development in those slow puberty cases,—and when I see the dormant spot puff for a mammary gland I know that restoration will surely follow,—and to arouse this slumbering, sympathetic and vasomotor system Sanmetto is truly great."

The Death of Dr. Langerhaus' Son Explained.—A full and satisfactory explanation of the sudden and tragic death of the little son of Dr. Langerhaus, immediately following an injection of antitoxin serum, has been reached through the subsequent investigation. In the first place the analysis of the serum proved it to be reliable, and no irregularity in the method of its administration could be discovered. It was found, however, that the child had just completed an unusually heavy meal, and as the necropsy showed his larynx and tracheas well filled with a material identical with that found in his stomach, the accepted inference is that while faint from the shock of the injection he was unable to eject the vomited matter from his throat and instead drew it into the air passages with fatal effect.

It may be concluded then that what appeared to be quite damaging evidence against the serum is really the result of a very simple accident.—*Medical News, July 4, 1896.*

Digestive Disorders of Children.—The value of listerine in those digestive disorders of childhood which lead to what is commonly called cholera infantum can scarcely be overrated. A teaspoonful of listerine administered per oris has been known to dissipate the most alarming symptoms, cutting short the attack and subsequently saving life. A good way is to begin something like this: Calomel and chlorate of potash, each one grain, to be rubbed well together and to be divided into ten powders, one to be given every five minutes until vomiting ceases and the nature of the stools has been changed; then commence and give teaspoonful doses of listerine every four hours until convalescence.—*Medical Progress.*

THE TRI-STATE MEDICAL JOURNAL

Ruins of St. Louis City Hospital, destroyed by Tornado of May 27th, 1896.

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CLINICAL LECTURE.

LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION.

By G. FRANK LYDSTON, M. D., of Chicago,

Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Attending General Surgeon to the Militant Hospital; Lecturer on Criminal Anthropology in the Kent College of Law.

[CONTINUED FROM AUGUST ISSUE.]

EXCESSIVE sexual indulgence is relatively rare, for the reason that opportunities for it are not so favorable and frequent as for masturbation. The habit of sexual excess is, to a certain extent, self-regulating, because of the fact that exhaustion of power occurs before serious physical injury has been done, and the individual must stop for the time being. The age at which sexual excess is apt to occur is generally far enough advanced to avoid the marked depression produced by masturbation upon

the susceptible youth. Continued excess will, however, produce effects something similar to those of masturbation.

The reciprocal "magnetism" experienced during normal intercourse undoubtedly protects the individual to a certain extent, and patients have told me that intercourse with some females was extremely exhausting to them, while with others they were not debilitated by much more liberal indulgence. That this "magnetism," however, protects the reckless *roué* in pursuit of variety is questionable.

The extent to which cohabitation may be indulged in with impunity necessarily varies with the individual, but on the average it may be said that there are few who are not injured by more than bi-weekly indulgence. One of my patients expressed a view that was hardly in accordance with this, in the statement that he was "now very moderate," and could get along very well with a single nightly indulgence.

It seems to me probable that much of the nervous derangements seen among both men and women are due to excessive sexual indulgence, and it is absolutely positive that many of the prevalent local diseases of women are either produced or enhanced by sexual excess. Very little consideration is shown by the average man toward his wife; indeed, she is usually a secondary consideration in sexual matters. Voluntary sexual excess on the part of women is very rare, and where they are especially importunate, there is usually some physical defect to account for it. With men sexual excess is voluntary in and out of matrimony. It is the misfortune of the average man at the present day to believe that his very existence revolves around his penis and testicles; indeed, a large proportion of masculine humanity is imbued with the fatuitous idea that man's principal mission in life is that of a panderer to his own base appetites. In thus worshiping, so to speak, his virile members, he reverts back to a period of the world's history so ancient as to make the situation as ludicrous as it is humiliating. I think that upon reflection you will indorse my position when I state that it is my belief that if the sexual monomaniacs were removed from society its ranks would be sadly depleted.

The importance of the question of the relation of sexual excess and masturbation to the welfare of the human race is obvious. We have but to review our ancient history a little to observe the deterioration of races resulting from unbridled licentiousness. *It would be well for both men and women to understand that if they desire to perpetuate their families with good healthy stock, they must be moderate in sexual indulgence.* Every stock breeder understands this principle, and we may as well learn to apply it to the human species. Marriage at a premature age bears the same relation to the quality of the progeny as does sexual excess in more mature life.

It has been found that breeding very young animals is unprofitable, for the reason that the progeny are poorly developed and weak. In a general

way it may be said that in the case of the human subject the progeny of individuals who marry very young are almost invariably unfit for the struggle for existence. The result is in many instances very similar to that of consanguinity.

Experiments by Goddard years ago established the fact that in the case of animals frequent copulation has a pronounced effect in impairing the quality and quantity of the semen. His experiments consisted in the examination of the sperm ejaculated by stallions at different acts of copulation during the same day. The result showed that the spermatic fluid, although quite dense, opalescent, and of a yellowish or amber color at the first cover, became thinner and clearer, so that after about the fourth act of copulation it was almost like water, the spermatozoids being very few in number. The experimenter concluded that the spermatic fluid ejaculated at the first act of copulation in the morning would be quite certain to fecundate, while that of later acts would frequently fail. It would, therefore, be better for a stallion to be allowed to cover only one mare in the course of the day, the result being much better than where the animal is obliged to cover four or five.*

Several individuals who have indulged excessively in sexual intercourse have on close questioning informed me that they have noticed that the orgasm after numerous acts of intercourse was attended by the expulsion of little or no semen. It is probable that the fluid discharged which attends ejaculation after repeated acts of intercourse is composed mainly of secretion of the prostate, Cowper's glands, and urethral follicles. These various facts tend to show conclusively that the individual who copulates much is apt to procreate the least and vice versa. As one of my friends facetiously and aptly expressed it in a recent lecture, if the semen ejaculated after the fourth successive act of intercourse were converted into ink, it would not be sufficient to dot an "i."

The most frequent results of sexual excess which will be called to your attention in practice will be premature failure of sexual power, impairment of vigor, premature ejaculation, partial and complete impotence. These conditions will receive attention later on.

Sexual perversion in its various forms is one of the rarer results of masturbation and sexual excess, but will receive separate consideration in a future lecture.

The management of masturbation and sexual excess is largely of a moral character, as may be readily appreciated, and is chiefly prophylactic rather than curative.

The first step in the cure or prevention of the vice of masturbation and, incidentally, of sexual excess is to improve the moral tone and strengthen the intellectual power of the patient. The more perfect the

*Traite de Physiologie, (Longet).

mental discipline the easier it will be to improve the morale of the individual. One of the first steps should be the interdiction of all literature, classical or otherwise, which tends to foster sexual impulses. Any work which treats of sexual matters in a manner suggestive of condonation of indulgence is injurious, no matter how gilded the phraseology may be. Strange as it may seem, there is a certain amount of innate depravity in the human mind which impels growing lads, and sometimes girls, to seek for pruriency in everything they read, and even the Bible is not unimpeachable regarding its effects upon the young; indeed, there are few books from which a child can obtain more pernicious ideas of sexual matters than from the Old Testament. Oftentimes a natural and pardonable curiosity impels a child to seek for information upon a subject toward which he naturally turns but in regard to which he has always been kept in ignorance.

There is one point in sexual physiology which should always be impressed upon our patients: The impression prevails among young men that exercise of the sexual function is an absolute physical necessity, irrespective of the method of its accomplishment. Indeed, it is probable that some physicians who certainly ought to know better foster this idea by ill-weighed and injudicious counsel. This idea is most pernicious in its effects and it becomes our duty to correct it. Although no adult man or woman in our present state of society can be in an ideal physiological condition while in a state of celibacy, one may be perfectly healthy and physically vigorous while leading a life of absolute continence if the mind be properly disciplined and the body made completely subservient to the will. The excuse of physical necessity is too often a subterfuge to justify fornication and, as I have seen in practice, masturbation. *That such an excuse should ever be offered is striking testimony regarding the prevalent ignorance of sexual physiology. A better education in the ethical and physiological aspects of the sexual function is a crying necessity.*

The patient should be impressed with the idea that the sexual apparatus is less than a secondary consideration in the physical life of the individual; indeed, the average man would be better off without it as far as his mere physical welfare is concerned. It is unnecessary to life, and its functions may be held in abeyance for very long periods, even for life, without necessarily producing physical injury. When thus held in abeyance the generative function may be called into action at any time and present no evidences of deterioration from the compulsory rest. In making this assertion I wish to be clearly understood to assume that the physical is held under the control of the moral nature. If the mind be disturbed by sexuality, as it is apt to be in our present state of society, enforced sexual rest is often productive of evil effects, as has already been stated in connection with the subject of "sexual starvation." When, in the struggle between the moral and physical natures, the will is triumphant the result is never detrimental.

[TO BE CONTINUED.]

ORIGINAL ARTICLES.

ON THE TREATMENT OF ENLARGED PROSTATE BY VASECTOMY; OR, DIVISION OF THE VAS DEFERENS,*

By REGINALD HARRISON, F. R. C. S.,
Surgeon to St. Peter's Hospital, London.

IN making this communication it is with the object of endeavoring to give prominence to an aspect of the subject which seems to me worthy of our careful consideration. I refer to division of one or both vasa deferentia as an alternative proceeding for castration in certain cases of enlargement of the prostate. I have practiced this operation occasionally under these circumstances and my conclusions are for the most part drawn from the cases which have been thus brought under my observation.

I think there can be no doubt that either removal of the testes, or their atrophy, however obtained, is liable to be followed by a corresponding shrinkage or diminution in size of the normal prostate. This fact was pointed out by Decimus Hodgson in his work on the prostate as early as 1856. He remarks: "In persons who have been castrated the prostate dwindles down almost to a rudimentary condition." I further found from cases recorded by Birkett, Hilton and others, where the vas had been destroyed by injuries, that such a lesion was liable to be followed by an atrophy of the corresponding testicle. I cannot, however, find in these cases any reference to the prostate.

These facts seemed to me, as well as to others, of sufficient importance to warrant a trial of division of the vas, either on one or both sides, in cases where the prostate was enlarged and micturition seriously impeded, mainly on the grounds that if satisfactory results followed, the risk connected with other operations in these cases would be avoided and without any mutilation being effected.

The operations I have practiced may be divided into two groups of cases: (1) Those where only one vas has been divided and (2) those where both vasa have either been simultaneously resected, or with an interval of some days between the two. I have done twelve cases of single vasectomy and ten of double. It will be seen that in this respect vasectomy has been practiced on the same lines as castration, in some cases the operation being confined to one testis, whilst in others both have been removed.

Of the twelve cases of single vasectomy, seven appear to have derived permanent benefit from the operation, whilst in the remaining five the

* British Medical Association, Carlisle, July, 1896. Sent by Author to TRI-STATE MEDICAL JOURNAL.

results were either negative or it was found impossible to trace the patients subsequently. I will give the particulars of two cases, which may be taken as representing what I regard as a satisfactory result:

Patient, aged 69, operated on early in January of the present year and examined five months afterwards. On admission to hospital his prostate was found very large. His prominent symptom was extreme frequency in micturition. Though not using the catheter, and the amount of residual urine not exceeding one ounce, he had for some time past been micturating about every hour both day and night. As the right lobe of the prostate was the larger of the two I divided the right vas. The operation was followed by great improvement in all his symptoms and he was able to retain his urine for four hours. This patient had been obliged to give up his work as a house painter by reason of the extreme frequency of micturition. After the operation he was able to take up this business again as his livelihood. He is quite content with his present condition. The right testis is atrophied and soft; the left is somewhat larger than before. The right side of the prostate has undergone shrinkage and is now perceptibly smaller than the opposite lobe.

The next case is that of a man, aged 72, on whom I operated in December and examined six months afterwards. This patient complained of great frequency in micturition of ten years' duration, eventually amounting to about every two hours day and night and sometimes oftener. There was only a small amount of residual urine and he was not dependent on the catheter. The frequency of micturition, as in the preceding case, which interfered with his occupation and injured his health, was the prominent symptom in this instance. I divided the right vas. During the night following the operation urine only was passed once. The improvement in this respect continued and when I saw him six months afterwards micturition was normal in every respect, and though only one vas had been divided, considerable shrinkage of the prostate had taken place. In the majority of my cases micturition became much less frequent after operation.

It is only right, however, to state that in two of the cases I operated on last year no benefit appeared to follow, so far as this system was concerned, and as no change was observed in the opposite testicle indicative of hypertrophic activity, I was not disposed to repeat the operation on the other side.

Turning now to the second group of cases where both vasa were divided I would, in the first place, remark that I think it is better to have an interval of a month or so between the operations on either side. The risk is less and if, as in the preceding cases, the operation is undertaken for the relief of frequent micturition this may be accomplished, as I have illustrated, by the sacrifice of a single vas. In some of these cases of double vasectomy it will be found that after the vas has been divided, the prostatic symptoms sub-

side temporarily and then reappear coincident with some hypertrophy taking place in the testicle of the opposite side, which not infrequently happens. It is in these and after the second vas has been divided that I have obtained the best and most permanent results.

Out of the ten cases of double vasectomy I can claim for five great and, I believe, lasting benefit from the operation. Of the remaining five, two do not appear to have derived much advantage from it, two I am not able to trace, though one seemed in a good way when I last saw him a month after the second operation, whilst the fifth case is of too recent a date for use in connection with this paper, though he is progressing favorably. As this case is rather an unusual one I will briefly relate it. It is that of a man approaching 70, who consulted me last year for a supra-pubic fistula consequent on lithotomy. He had in addition a very large and very hard and fibrous prostate. After trying various means to close his fistula and failing, owing, I believe, to his large prostate, I determined to try to diminish the size of the latter by dividing his vasa. I divided one vas in February and the other in May, the result so far being that he has been able to abandon his catheter which he previously used constantly, his prostate is about half the size, and the fistula is now reduced to the smallest dimensions. Curiously enough, though I removed one and one-half inches of each vas he tells me he still retains the necessary desire and power for sexual intercourse. I cannot, however, at present include this case amongst the successful ones.

Of the five I have referred to of double vasectomy which I think are entitled to the latter distinction, the points that have been for the most part gained are these: Diminished frequency in micturition, or in the use of the catheter, less obstruction to micturition or to the introduction of the catheter, and an improved or normal condition of the urine owing to the bladder being more completely emptied—less liability to hemorrhage as, for instance, in connection with the use of the catheter and decidedly less suffering from prostatic and vesical spasm. No fatal results, so far as I am aware, have followed my operations, nor any mental disturbance. Now these are important points to obtain in the treatment of prostatic hypertrophy and if this can be done with some degree of certainty then I think we shall feel largely indebted to Dr. William White, of Philadelphia, and to others who have followed in his wake.

That many of the troubles connected with enlargement of the prostate can be successfully combated by castration or by vasectomy I do not think there can be a doubt of. But in both of these operations a certain proportion of failures will be met with, which clearly show that there are some pathological conditions of the prostate which are not influenced either by the one or the other.

In advocating a trial of vasectomy in cases of prostatic hypertrophy I

must not be supposed as being opposed to castration. On the contrary very remarkable and gratifying results have been obtained from it in some advanced forms of this affection. We should not, however, forget that in this class of operations, in which I include vasectomy, apart from the question of mortality, certain mental disturbances are liable to follow which are sometimes very distressing.

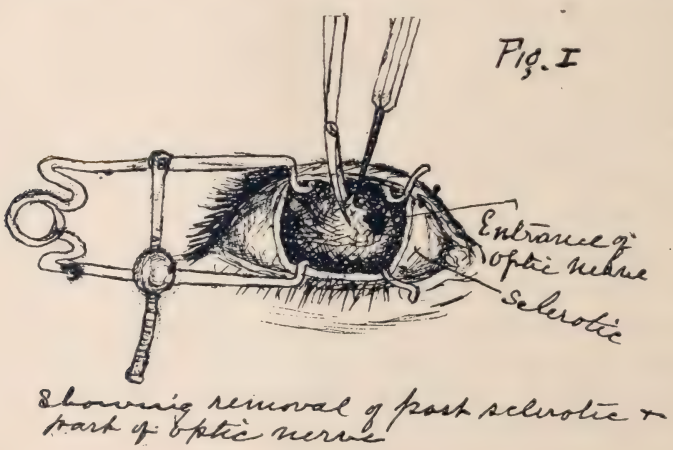
We have yet to learn more accurately the kind of cases to which these two operations are respectively applicable. At present I think we have hardly sufficient experience and information for this purpose.

SCLERO-OPTIC NEURECTOMY.

By WILLIS HALL, M. D., L. R. C. P., ED., of Victoria, B. C.

AFTER the consideration of various methods of dealing with "destroyed eyes" I have adopted with much satisfaction the following:

With curved scissors the sclerotic is punctured directly posterior to the ciliary body, cutting completely around and removing the anterior portion of the eyeball, care being taken not to implicate the insertions of the recti. The vitreous is then removed and the inner surface curetted. After cessation of hemorrhage a speculum is inserted within the sclerotic (Fig. II), or



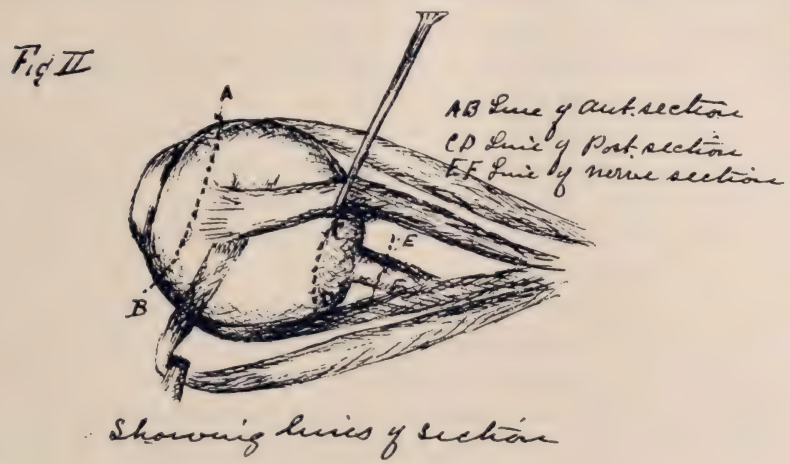
the edges may be held apart by small retractors while the scissors is entered about 50 mm. external to the entrance of the optic nerve and a second circular section made, cutting only with the extreme ends of the blades in order to avoid wounding the contiguous structures. This circular piece is then drawn forwards and inwards and the attached optic nerve severed a few mm. behind its sclerotic attachment and the piece of sclerotic and nerve

stump removed. There remains of the eyeball but a zone of sclerotic, which contains the attachments of all the extrinsic muscles. Blood may now be allowed to collect within this sclerotic band, and the anterior edges brought loosely together with sutures, or a gauze drain may be inserted if there has been exposure to sepsis.

The advantages of this method briefly stated are:

I. The great volume of the pad due to the preservation of a considerable amount of tissue;

II. The extensive movement of the pad owing to the muscular attachments being left undisturbed;



III. The slight risk of paralyzing the muscles during the operation through injury to branches of the third, fourth and sixth nerves; and

IV. The removal of any tendency to sympathetic disease in the remaining eye by the cilio-rectomy and sclero-neurectomy behind.

It remains to be stated that the movement of the artificial eye, when placed upon this pad, leaves little to be desired. Within 45° it is difficult to detect any deficiency in movement when compared with the normal eye after testing in the horizontal, perpendicular and oblique planes, and in more extensive rotation there appears limitation only externally.

A Mistake.—One of the medical colleges of this city states in its last announcement that: "In some instances one year is allowed in which to make up the requisite amount of Latin." This is a mistake. The Missouri Board of Health has not authorized such a statement. In fact, the Board refused to grant one year in which to make up Latin deficiencies.

PRACTICAL POINTS.

By BEN H. BRODNAX, M. D., of Brodnax, La.

1. ERYSIPELAS, FACIAL.—Measure out for adult:

Three 10-grain doses of calomel,
Three 20 or 30-grain doses of nit. potass.

Dissolve each dose of nitrate in a half-glass of water in separate glasses.

Commence with calomel and alternate every half-hour. Children half the dose. A few five-drop doses of Fowler's solution, or five-grain doses of sulphur powdered after the medicine has acted, or "acid iron tonic," ten drops in three or four ounces of water, sweetened to taste, as a drink after action of calomel. This disease is an aggravated urticaria, in my opinion, and should be treated same way, *i. e.*, clean out the intestines, stomach and kidneys.

2. ECZEMA.—"Boralide"; clean off the crusts down to the true skin with poultices and warm water. Sprinkle the powder all over the surface and cover with a light thin cotton batting and cap if on head; bandage otherwise; wash clean and repeat every twenty-four hours. Boralide is made: Boric acid,

Acetanelid, equal parts, powdered very fine.

Bismuth subnit. may be added equal to bulk of both. The others, if in very young infants, cures in seven to nine days some of the worst forms.

3. BURNS AND SCALDS.—Paint the entire surface and a little over the edges with *pure undiluted carbolic acid;* pain *ceases instantly* and a new skin forms underneath in a few days, no matter how deep the burn or how much surface is denuded. The acid forms a chemical combination with the serum and an impervious coating excludes the air, benumbs the nerves and heals; prevents suppuration; is not absorbed into the body.

4. PUSTULES, BOILS, ABCESSES.—Mix "boralide," above described, with same bulk of glycerine. Apply on a cloth; or, if there are a number of them, dust the entire surface after having cleaned and softened the skin with warm water. The *dry* mixed powder seems to have an *affinity for pus*, and soaks it all out, cleaning the sore entirely. Repeat every twelve or twenty-four hours; cover with lint cotton. If the sore is open clean out by irrigation with warm (hot as can be borne) water, then fill it with the "boralide" powdered, or "gly-bo-lide," as the mixture, with glycerine, is called by my friend, Dr. Burgess, of Chattanooga; 1-120 grains of strychnia or nitro-glycerine effectually prevents any cyanosis from absorption.

5. As a menstruum for almost any medicine for dysentery or intestinal trouble, "turpentine tea," made as follows:

Turpentine, 20 to 25 drops.
Sugar or syrup, 2 drachms.
Mix thoroughly.

Add hot water, stirring; let stand till cool and strain. This may be used as means instead of water for making bismuth mixtures; or, in fact, any kind of cough or diarrhœa mixture.

No. 1, I found in the *Va. Med. Monthly* several years ago, and I give no other treatment, and it *never fails* me.

Nos. 2, 3, 4 and 5 are my own concoction—warranted.

6. "ACID IRON TONIC."—Superior every way to tr. of iron, full strength: Nitro-muriatic acid, 2 ounces.
Sulphate of iron, 180 grains.

Mix. Let stand twenty-four hours to digest. Dose, ten to twelve drops in three or four ounces of water, sweetened if desired, and drank *ad libitum*.

I got this twenty-five years ago from Dr. Robert Cotton, formerly of our parish, now of Alabama. It can't be beaten for a splendid tonic. I use no other in my chill cases.

EPILEPSY,

By J. D. ALBRIGHT, M. D., of Akron, Pa.,
Secretary of the Akron Health Board.

AS ONE reads up the different authorities on the disease epilepsy, one is surprised that so few offer any hope of relief or ultimate cure. It is certain that there are few diseases that cast a deeper gloom upon its possessor, or which cause a more profound sympathy among the friends of the person so afflicted.

The etiology in most cases is obscure, in fact almost beyond discovery, except in those cases which date from traumatism.

It is hardly necessary in this brief article to enter into the detail of symptomatology, as the profession at large is already too familiar with the same.

As regards treatment, localized surgery has done much for those cases due to a discoverable brain lesion. Alterative and sedative treatment has rendered some service in lessening the frequency or severity of the attacks, but the records do not show any permanent cures that have been effected.

The ammonium chloride treatment has been advocated by some very enthusiastically, but in the hands of many, when real epilepsy was present, the results have fallen far short of satisfactory.

These unfortunates deserve our earnest sympathy and our best efforts toward effecting a cure of their condition.

Just at present there are several new ideas put forth here in the East which are, to say the least, most promising. One is the establishing of a

colony for epileptics, with proper hygienic surroundings, and the best medical aid obtainable. The other is a remedy manufactured by the Anchor Chemical Co., of Akron, Pa. This remedy is practically not new, as some of the ingredients have heretofore been in use. However, the results of the present combination far exceed those of any other preparation ever brought to my notice.

This remedy, which is named Pil. Neurolitic, is a compound of the Hydro-ferro-cyanide of Iron, Ext. Capparis, Ext. Phoradendron, Zinc Valerianate and Hyoscin. With these pills at my command, I have good reasons to hope for beneficial results in all, even severe cases.

I will report a case or two which will better illustrate the effects of treatment:

Case 1.—Young lady, aged 16, had experienced gradually increasing attacks of epilepsy, ever since mensturation occurred, three years before. At first the attacks were light and only present at the periods, but later began to manifest themselves between times. She was treated with bromides and ammonium chloride, but never passed a period without experiencing some disturbance of an epileptic nature.

About this time Pil. Neurolitic were brought to my notice, and I placed her upon them. I began by giving one pill after breakfast, and one after supper, beginning immediately after a rather severe attack.

The next period arrived and passed with but slight disturbance. I ordered the pills continued in the same doses for another month, and found her without any evidence of the trouble when her next period arrived. More than seven months have passed since she ceased to use the pills, and thus far she has been free entirely from the trouble and to-day is one of my most grateful patients.

Case 2.—Gentleman, aged 34, had been accustomed to have an epileptic seizure about every eight weeks. The treatment by Bromides and Ammon. Chlor. did not give relief, and I put him on the Pil. Neurolitic, one pill four times a day. After taking the pills for six weeks, I allowed him to discontinue their use and wait for developments.

At the end of thirteen weeks he experienced a slight attack and came to me for more medicine. Treatment was the same as formerly and was continued for four weeks more, when he again left off. Since that time more than five months have passed, and he has had no return of the fits.

Case 3.—Boy, aged 13, has had recurring fits every four weeks for the past year or more. Called on me for treatment ten weeks ago, and was given the remedy used in the previous cases, one pill twice a day, for two weeks, then one pill three times a day. He took the pills thus, for four weeks, and then stopped, and we are now awaiting further developments. Thus far there has been no return of the trouble, and I have every reason to believe that he will remain free from the disease.

PAQUIN'S HORSE-BLOOD SERUM IN CONSUMPTION.

PRACTICAL POINTS CONCERNING THE SERUM THERAPY.

DR. J. A. DUNWOODY, of Cripple Creek, Colo, made the following very interesting report to the *New York Medical Record* of July 11, 1896, which is worthy of reproduction. It certainly adds confirmation to the evidence fast accumulating as to the value of Paquin's preparation in the treatment of tuberculosis:

"I will begin with my own individual case:

"*Case 1.*—J. A. D———, male, white, aged 30. On July 26, 1895, upon physical examination the upper two-thirds of the left lung was found to be infiltrated; numerous moist rales could be heard throughout this portion, and there was expectoration of a muco-purulent character, about two ounces during the twenty-four hours. Weight, 125 pounds. Microscopic examination showed tubercle bacilli. Range of temperature was from 99° to 100° F., and this continued until August 2d, when I was attacked with acute pleurisy on the left side, which confined me to my bed for ten days. The temperature ranged then from 100° to 102·5° F. for a week, after which time it fell to 99° to 100° F. until September 18th, when it became 98.5° F. The injection of serum was begun on July 26, 1895, with ten millimeters and rapidly increased to forty-five millimetres, and were then reduced to thirty millimetres, which quantity was maintained, continuously, notwithstanding the attack of pleurisy, until December 24, 1895, at which time a small abscess was produced, owing to the want of proper care by the physician giving the injection. Weight at this time (December 24th) had increased to 143 pounds; the expectoration had nearly ceased, there not being enough for microscopical examination. Physical examination revealed the absence of all rales; there was clear vesicular respiration throughout the affected portion of the lung, though somewhat weak in character. The right lung was not affected at all. On March 24th I was attacked with la grippe, during which time my weight was reduced to 134 pounds, and cough returned for a short while, with loss of appetite, etc. On April 13th I resumed the daily injection of thirty millimeters of serum, with resulting increase of weight of two pounds and cessation of cough at this time, April 23d. I have used no other treatment at all—the injections of serum alone. This point in my case proves conclusively the great mistake of stopping the use of the serum too soon, or before the lung tissue has been restored to its full strength and vitality.

"*Case 2.*—H. H. ———, white, female, aged 4 years, weight twenty-seven pounds. Date of examination, January 3, 1896. Left lung almost completely consolidated; no vesicular respiration; bronchophony quite distinct; cough quite distressing at times; range of temperature, 99° to 100° F.

in afternoon. I began on January 3, 1896, with the injection of serum, four millimetres, and rapidly increased to twelve millimetres daily. The right lung showed no lesion. During the first six weeks of sero-therapy patient increased in weight four and a half pounds, and has maintained this weight (thirty-one and a half pounds) until the present time. Upon physical examination on April 8th I find there is some vesicular respiration throughout the affected lung. Cough has almost entirely ceased. During the last three weeks, the injections have been somewhat irregular, as the little patient lives two miles away from my office, and has had a mild attack of scarlet fever, which has been quite prevalent where she lives.

"*Case 3.*—Mr. S. ———, white, male, aged 46; weight, 135 pounds. Date of examination, March 16, 1896. Left lung almost completely consolidated; no vesicular respiration, quite dull and flat upon percussion; small tuberculous ulcer upon the epiglottis and vocal cords, affecting the voice; expectoration about four ounces daily. Patient stated that he was first attacked with tuberculosis in October, 1894. A daily injection of thirty millimetres of serum was begun immediately. There was considerable erythema in this case, which gradually disappeared though the serum was given daily. On examination April 21st I found that there had been wonderful improvement in the condition of the lung; there was already some slight vesicular respiration throughout the lung. Expectoration had diminished about one-half, or to two ounces in twenty-four hours. He had increased four pounds in weight. When this patient commenced the daily injections he could walk only a short distance without extreme fatigue. Now he states that he can walk at least half a mile without any discomfort at all.

"*Case 4.*—J. B. ———, male, white, aged 21. Date of examination, February 15, 1896. The patient stated that he had had tuberculosis since the spring of 1893, and that his normal weight used to be 143 pounds. The left lung at the time of examination was in the same condition as in the preceding case; no vesicular respiration, dull and flat upon percussion. He weighed at that time 115 pounds, and was much emaciated. The patient is difficult to control, and comes only irregularly for injections. He has not gained in weight. There is evidence that he is addicted to masturbation. Upon examination April 21st I can find very little or no improvement in this case, and there is very little hope of his ever being relieved. (Such cases cannot be expected to recover by any mode of treatment short of the miraculous).

"I have given here a history of these cases sufficiently full, I trust, to enable the reader to form a judgment. I am thoroughly convinced that sero-therapy is in the line of right treatment, that will eventually rid the dread disease (tuberculosis) of all its terrors and its fatal record."

REMARKS ON PERITONITIS,

By BYRON ROBINSON, B. S., M. D., of Chicago,
Gynæcologist.

IT IS a curious fact that one can find no complete book on the peritoneum in any language. It is true we have limited monographs, as the excellent one of Tavel and Lanz, but no standard work. The author is writing a work on the peritoneum in three volumes. The turtle's peritoneum is the most typical of all animals to study, as the stoma vera, lymphatics, nuclei of the endothelia and pigment cells are distinct. The blood vessels of the turtle's peritoneum are ensheathed with lymph vessels. The blood vessels and lymph vessels are concentric, the lymph vessel being excentric. The inter-endothelial line can be dissolved into two parallel ones with transverse anastomosing processes. We must discard the word inter-endothelial substance and substitute for it inter-endothelial space. The best figure I can think of to compare the inter-endothelial space to is a railway track. The two rails represent the two parallel lines, while the ties pass transversely across the clear space. As to the stomata vera, all investigators are at war with each other, but the stomata vera exist just the same. Peritonitis is a secondary disease just as the ovarian disease is secondary to tubal (endosalpingitis). The treatment of peritonitis is neither surgical nor medical, but depends on each individual case which we are unfortunately not always able to judge. Every abdominal surgeon knows that about 75 per cent. of cases of appendicitis will recover with medical care, but not one can say just which will recover and which will die. Peritonitis is a common disease.

In about three hundred personal adult autopsies I found fully 95 per cent. of cases with peritonitis. The common localities of peritonitis I found to be over the psoæ and diaphragmatic muscles, at bowel flexures, at hernial orifices and at the ends of the Fallopian tubes with approximately the following percentage:

1. Around the spleen, ... 90 per cent.
2. Sigmoid flexure, ... 82 per cent.
3. At the tubal fimbriæ, ... 80 per cent.
4. Around the cæco-appendicular apparatus, . . 70 per cent.
5. About the gall-bladder, ... 65 per cent.

In some forty autopsies of infants I never saw any local peritonitis. Since there is 80 per cent. of pelvic peritonitis in adult women, we know that pelvic peritonitis is not always a surgical matter. Absolutely the same may be said of appendicitis, gall-bladder trouble, meso-sigmoiditis and peri-spleenitis. Where the peritoneum surrounds an abscess it should be always a surgical affair. The nearer the diaphragm peritonitis occurs the more dangerous it is because the diaphragmatic serosa is the chief point

where peritoneal absorption of fluids occur. There is a fluid current existing in the peritoneal cavity toward the diaphragm. Stomata vera are very numerous on the diaphragmatic serosa and beneath the serosa is a vast bed of lymph channels. My experiments (as well as others) demonstrate that when finely divided colored granules suspended in fluid are injected into the peritoneal cavity that said granules are only (?) absorbed by the diaphragmatic serosa. In general septic, diffuse peritonitis, no matter of what origin, abdominal incision and drainage gives the only small hope. However, few get well, as Fenger operated on thirteen and twelve died. Operations on the dying are very unsatisfactory. When one does gets well, it is perhaps not general peritonitis. Peritonitis can be very diffuse without being completely general. Tympanitis is incipient peritonitis and bowel distension is due to a paralysis of the bowel wall. Diarrhœa (drainage) is what saves and to Lawson Tait must be given the credit of systematically using salines to cure beginning peritonitis. The medicine of peritonitis is "salts and calomel" and its surgery is drainage. The great omentum, of which the brainy Huschke wrote in 1844 that its physiologic signification was obscure, is a wonderful agent. I learned its use by experiment:

1. It is a drain for the peritoneal cavity.
2. It is the great peritoneal protector against infectious invasion.
3. It is like a man-of-war, ready at a moment's notice to sail to invaded parts.
4. It prevents the adhesion of the intestines to the anterior abdominal wall.
5. It repairs wounds.

I have actually seen it effectually seal gut holes in gut wounds. I shot ten dogs with a thirty-two-calibre and did not operate. Six recovered and four died. I shot fifty dogs and operated immediately and lost a greater number of them than by letting them get well without an operation. The reason that the gall-bladder perforation induces less dangerous peritonitis than the appendicular perforation is due to (*a*) the ligamentum hepato-colicum forming a barrier against invasion. It circumscribes the process. One can lodge the fist frequently in the pocket formed by the ligamentum hepato-colicum. (*b*) The contents of the bile are not so virulent as the contents of the appendix (bacterium colicommunis). The small intestines are an especially dangerous ground for peritonitis because they are continually in motion and distribute the infection and also they are near the diaphragm, the rich field of lymph channels.

The most significant symptom of a sudden and dangerous peritonitis is nausea or vomiting. In an established peritonitis the facial expression is perhaps the most significant symptom. All animals do not resist peritonitis alike. Peritonitis is so fatal in the horse that laparotomy in him is so

far impracticable. Man and dog resist peritonitis with about equal degree. The cow and pig resist peritonitis powerfully. I have observed chronic peritoneal adhesions in a mud-turtle.

The peritoneum is a great lymph-sac. The treatment of peritonitis must rest on that idea which is executed by means of "salts and drainage." Two matters in regard to the peritoneum still remain incompletely understood, viz.: its structure and function. Experiment alone can settle them.

RECENT VIEWS OF THE CAUSATION OF ASTHMA, HAY-FEVER AND ALLIED AFFECTIONS, AND THEIR TREATMENT,*

By A. R. AMOS, M. D., Des Moines, Ioa.,

Late Clinical Assistant in the Royal Ophthalmic and Royal Ear, Nose and Throat Hospitals, London; Lecturer on Ophthalmology in Iowa Argicultural College, etc.

IN TREATING this subject I shall confine myself to the title given, and shall take up somewhat in detail the causes, giving especially the more modern views which are based largely upon systematic clinical observation. I do this advisedly because it is only within recent years that an opportunity has been given the medical man to thoroughly explore and operate the nasal cavities.

Asthma, according to Salter, who was the first to write extensively upon the subject, is essentially a neurosis. He believed that the phenomena of asthma depended upon spasmodic contraction of the unstriped muscular fibres of the bronchial tubes, which are mainly reflex in character.

This was essentially the view of the ancients, who believed it to be due to spasm.

In 1872, however, we find the spasm theory questioned by Weber,[1] and a new one substituted which seems much more plausible. Weber was the first to teach that the cause of the paroxysms lay in a vaso-motor paresis of the nerves of the bronchial mucous membrane, and not, as previously maintained, in a spasm of the unstriated bronchial muscles. He held that under the influence of this vaso-motor paresis there occurs a sudden dilatation of the blood-vessels, which become so markedly distended as to interfere with the passage of air through the bronchial tubes.

After a persistence of several hours, the membrane being dry, as in all cases of the early stage of inflammation, there occurs a transudation of serum from the vessels which once more return to their normal size, allowing the tubes to resume their usual calibre.

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* Read before the Central District Medical Association.

[1] Tageblatt der Naturvorcherversammlung, 1872.

Weber's paper, which threw but little light upon the causes which might induce such a condition, was followed by many observations on this point.

Voltolini, for example, showed a case to be due to nasal polypus, the paroxysms being entirely relieved by removing the polypus. Porter, Daily, Spencer and others made similar reports, and finally a large number of authors, such as Schaffer, Hack, Frankel and others, went so far as to state that asthma was due not only to the nasal polypi but also to other nasal diseases.

Associated with these studies came the study of the second correlative of the title, hay-fever.

This disease had always been looked upon as an influenza occurring periodically like a cold in the head. Careful study reveals the fact that it differs essentially from an influenza or acute coryza.

The careful, close and critical study of hay-fever by Blackley has added much to our knowledge of this subject, while additional reports by numerous other observers establish beyond a chance of doubt the conditions which enter into the cause of this disease.

In 1883, Sajous, Hertzog and Roe wrote important papers in which they showed that the essential morbid state of the mucous membrane of the nose was the predisposing cause of the symptoms. They also pointed out the inappropriateness of the term hay-fever, and recognized the more appropriate term of vaso-motor rhinitis based upon pathological data.

Blackley was the first to advocate the pollen theory, which is now recognized by all writers of any note as a factor in the etiology.

In 1886 Bosworth[1] published a most important paper in which he maintained that "the prominent predisposing cause of all cases of hay-fever was an obstructive lesion of the nose, giving rise to vascular dilatation, caused by the rarefaction of air in the nasal chambers behind the point of obstruction, and further that three conditions were essential for the production of the disease: (1) an obstructive lesion in the nose; (2) a neurotic habit, and (3) the impact of pollen upon the nasal mucous membrane." In this paper he also maintained that hay-fever and asthma are identical; that one is a vaso-motor rhinitis and the other a vaso-motor bronchitis on which an obstructive nasal lesion, polypus, septal enchondroma, hypertrophy of the turbinated processes, etc., was an essential factor. In maintaining the latter assumption he shows how a large number of hay-fever patients suffer from asthma, how the application of a cocaine solution to the nasal mucous membrane will check or ameliorate a paroxysm of asthma, that the blood supply to the nose is regulated by the same vaso-motor tract as that which regulates the blood supply of the bronchial tubes; that in a large number of cases of asthma examined he did not fail to find in a single instance an

[1] Diseases of Nose and Throat, W. Wood & Co.

obstructive nasal lesion, and that a removal of these obstructions effected a cure or gave great relief. In his recent most excellent text-book[1] Bosworth formulates three conditions in each of these diseases upon which they depend:

Hay-fever is dependent upon:

1. A neurotic habit.
2. The presence of pollen in the atmosphere.
3. A disordered condition of the nasal passages.

Asthma is dependent upon:

1. A general neurotic condition.
2. A diseased condition of the nasal mucous membrane (not the bronchial).
3. Some obscure condition of the atmosphere exciting the paroxysms.

Of one hundred and twenty-one cases of hay-fever, with full notes, he makes the following table, showing the results of treatment:

Cured	51	Unrelieved	13
Relieved	43	Results unknown	14

As a most convincing argument of the correctness of his views he compiles some half-dozen tables of great interest from notes of eighty cases of asthma. In preparing this report he sent out letters to those treated covering a period of five years, asking a series of questions. The last question was: "Please state candidly and without favor what benefit, if any, you have received from the treatment, and to what you attribute your improvement or cure."

While all these tables are of interest I shall produce only a few.

Total number of cases of hay asthma	34
Total number of cases of perennial asthma	46

HAY ASTHMA.

Nasal symptoms immediately preceding attack, such as sneezing with watery discharge from nose	29
No symptoms preceding attack	5
Total	34

PERENNIAL ASTHMA.

Nasal symptoms preceding attack	33
No nasal symptoms preceding attack	12
Cutaneous eruption preceding attack	1
Total	46

INTRA-NASAL CONDITION—HAY ASTHMA.

Hypertrophic rhinitis	9
Hypertrophic rhinitis and deflected septum	12
Polypi and deflected septum	5
Polypi	4
Deflected septum	3
Elongated uvula	1
Total	34

INTRA-NASAL CONDITION—PERENNIAL ASTHMA.

Hypertrophic rhinitis	13
Nasal polypi	11
Hypertrophic rhinitis and deflected septum	11
Polypi and deflected septum	6
Deflected septum	3
Adenoid and hypertrophic rhinitis	2
Total	46

TREATMENT—HAY ASTHMA.

Hypertrophic rhinitis, treated by caustics: Cured	7
Improved	6
Unimproved	1
Deflected septum, operated on by author's saw: Cured	8
Improved	6
Nasal polypi, treated by snare without caustics: Cured	2
Improved	1

Treatment by snare and septal saw in cases of polypi and deflected septum: Cured	1
Improved	1
Cases treated by uvulotomy: cured	1

TREATMENT—PERENNIAL ASTHMA.

Hypertrophic rhinitis, treated by caustics: Cured	8
Improved	5
Polypi, treated by snare, without caustics: Cured	15
Improved	5
Deflection of septum, treated by author's saw: Cured	3
Improved	4
Unimproved	1
Adenoid growths removed by snare: Cured	2

To sum up the

RESULTS OF TREATMENT—HAY ASTHMA.

Cured	19
Improved	14
Unimproved	1
Unknown	0
Total	34

RESULTS OF TREATMENT—PERENNIAL ASTHMA.

Cured	28
Improved	12
Unimproved	1
Unknown	5
Total	46

These results, coming from so reliable a source as Dr. Bosworth, and collected with extreme care in securing candid answers, are certainly quite unexpected.

In addition to these statistics let me report a few cases coming under my observation during the past few years.

While assistant in The London Royal Nose and Throat Hospital I took occasion to study carefully the relation between obstructive nasal lesions and diseases of the respiratory tracts beyond the obstruction, and to notice the effect of treatment. A very large percentage of the cases of post-nasal pharyngeal and laryngeal catarrhs were actually demonstrated to be dependent upon an obstructive nasal lesion for their existence, the removal of the obstruction being followed by relief of the catarrhal inflammation. Nor was it necessary by any means that the obstruction be complete. The condition so often found of alternate closure of the nares by turgescence of the turbinated processes, producing with each inspiration a rarefaction of atmosphere in all parts of the respiratory tracts below the lesion is sufficient, when long continued, to induce these diseases.

It was also a common observation that these lesions were often accompanied by catarrh of the apices and a constant cough. This apex catarrh yielded to treatment only when the nasal lesion was removed. I think we may safely reason from these premises that in many cases of tuberculosis the bacilli first found lodgment in this part of the lung upon the simple catarrhal bronchitis, which was dependent upon the existence of an obstruction in the nasal cavities.

Add now to these conditions those of a general neurotic condition and some obscure condition of the atmosphere exciting the paroxysms, and we have a picture of vaso-motor bronchitis or asthma so graphically drawn by Bosworth.

Before referring to the treatment of these lesions let me report a few of the cases occuring in my practice during the past few years:

Mr. G., age 70, traveling salesman, with marked neurotic habit, has suffered severely with hay-fever and hay-asthma every year for twelve years, from about the 10th of August until fall frosts. He came under my care early this summer. A pointed enchondroma of septum seen only upon thorough contraction of the inferior and middle turbinated process was found well back on the left side of the septum, being constantly in contact with the hypertrophic turbinates. The right inferior turbinate was also swollen and dense. The enchondroma was removed with the saw and the turbinated processes reduced by the galvano-cautery.

Notwithstanding the unfavorable summer the patient had but one slight attack of sneezing and nasal turgescence, lasting less than twenty-four hours. The asthma did not return.

Miss R., age 25, with no marked neurotic habit, saw me early in August with well marked symptoms of hay-fever. Both inferior turbinated processes were found excessively swollen but more hyperæmic than hypertrophic. The galvano-cautery applied at two different times to the processes was followed by complete relief of all symptoms, which have not returned since.

Mrs. A., age 30, of neurotic habit, saw me two and one-half years ago, having suffered for years from perennial asthma, for which I had ineffectually treated her at various times on the general principles laid down in the text-books. I now explored the nasal cavities thoroughly with a 20-per-cent. cocaine solution. The posterior tips of the middle turbinated processes were found by post-nasal rhinoscopy to be hypertrophied. The galvano-cautery was applied by the aid of the mirror through the post-nasal space. The patient reports herself cured.

These cases, all followed by good results, are clear illustrations of the diseases under consideration.

The object of this paper being rather to point out the later well established theory of the causation of these affections, I shall say only a word about the treatment. Any recent text-book on the subject may be consulted.

Certainly the first place in importance must be given to the removal of the obstructive nasal lesion. For exostoses Bosworth's nasal saw will be found the best instrument. The enchondrotome and the nasal trephine answer a capital purpose in certain cases, especially in the small pointed tumors situated well back. Polypi and large hypertrophies may be successfully treated by the cold snare. Polypi should be thoroughly removed close to the roots. Cauterizing the stump does but little good, since, if it is removed from a point sufficiently high to prevent a return, the cautery is made to reach the spot with the greatest difficulty. For the reduction of the turbinated processes Bosworth and others prefer the chromic acid fused on the smooth, flattened surface of a steel applicator. While I have frequently used this remedy, I consider it far inferior to the galvano-cautery.

The point raised by Bosworth is that the acid is easier to manage. I do not find this to be true. The galvano-cautery is in my hands the more manageable of the two, the operator having it in his power, by means of different shaped electrodes and by his ability to withdraw it at any moment he chooses, to make just such a burn as he desires. In the case of children the chromic acid is to be preferred on account of the fright often occasioned by the galvano-cautery. Fibroid and other tumors are usually best handled by the cold or electric snare. All these procedures are performed under local anæsthesia of a 20-per-cent. cocaine solution. This strength is used with safety if care be taken to rub it on the mucous membrane from a probe tightly wrapped with cotton, repeating it two or three times. In six to eight minutes the anæsthesia is complete.

The plan of leaving a wad of cotton saturated even with a 10-per-cent. solution in the nose and asking the patient to wait while you attend another case is dangerous and should be avoided. The cautery will need to be repeated possibly a half-dozen times at intervals of a week to thoroughly accomplish a reduction of all parts of the hypertrophies. While I have treated hundreds of cases thus I have yet to learn of one ulterior baneful result, such as dry catarrh, loss of the sense of smell, etc. The latter is often much benefited, while the previously oversensitive condition of the nerves of common sensation is markedly reduced.

The general remedies to be employed are often of great service and should not be omitted, especially such as improve the neurotic habit.

In conclusion let me say: If this paper succeeds in the object for which it is intended, that of stimulating further attention to the condition of the nasal mucous membrane in all cases of asthma, hay-fever, bronchial catarrh, etc., I shall be repaid. I hope, however, that those of my fellow practitioners who have cases already treated or those which they may treat in the future will report them in the journals, that we may have fuller statistics of this important matter.

The encouragement is certainly sufficient to warrant us in offering our patients fair hopes of a cure from their very troublesome malady and without submitting to any serious surgical procedure.

Burned to Death.—Dr. Elsworth F. Smith, a prominent resident of St. Louis, who was accompanied by his youngest son and daughter, Mrs. Dr. Crosby of Fort Missoula, Mont., was fatally burned on August 17th. Dr. Smith was a graduate from the St. Louis Medical College in 1848, and for many years was Professor of Clinical Medicine in that institution. He was a gentleman of culture and refinement and enjoyed a large practice. For several years his son, Dr. Elsworth S. Smith, has been his associate in practice.

ACNE ROSACEA,

By A. H. OHMANN-DUMESNIL,

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AMONG the more common diseases of the skin acne rosacea may be numbered on account of its frequency as well as the fact that it may be seen at different ages and that it is due to so many causes. It is seen from early to late adult life. Before puberty it does not occur, as a rule, and this is no doubt due to the fact that at this period neither the skin nor its appendages, especially the sebaceous glands, have attained their full development. Males and females are affected, but the trouble is not as frequent in the latter as in the former.

Acne rosacea has been divided into three stages, which, if unchecked, untreated or permitted to be aggravated by the exciting cause, will naturally follow each other. However, there are cases observed in which the affection does not progress beyond the first or the second stage, seeming to assume a chronicity in that particular form. The three different forms of the disease which are seen are the hyperemic, the inflammatory and the hypertrophic, each one of which presents a marked difference from the others, and presents appearances and characteristics which will not only easily lead to its recognition but to its differentiation as well. This is an important point so far as the method of treatment to choose is concerned and is also valuable in the way of formulating prognosis. The forms are rather easy to distinguish from one another, as the salient characteristics of each one are sufficiently marked to enable even a superficial observer to do this.

The hyperemic stage is one not infrequently seen and almost as many times incorrectly interpreted. In this form, as in the others, it is the nose which is principally involved. At times it is the only part which presents the objective signs of the disease. The trouble is one easy to recognize from the fact that it appears as a more or less diffused redness of the nose, which is more marked at the tip. It is not unusual, however, to note this heightened color existing over the malar eminences, chin and that part of the forehead situated at the root of the nose. Any or all of the localities mentioned may be involved, but it is rare to find other areas of the integument of the face share in the process, whereas, in erythematous eczema the entire face, the ears and the neck are simultaneously the seat of the disease. In this form of acne rosacea, frequently called rosacea, to distinguish it from the other forms, more or less seborrhea exists. This latter may be of the oily form, or it may be of the dry. When seborrhea sicca co-exists it manifests itself in the form of fatty scales, or comparatively

small accumulations of sebum, as shown in Figure 1. In all cases of this form the integument is tense and more or less shining, the congestion being quite marked. Among the most prominent subjective symptoms complained of is a sensation of heat, which is almost always present. This form does

FIG. I. Acne Rosacea.

not long continue in men, but in women it is apt to be persistent and continue for years, and it produces much anxiety and mental disturbance on account of the disagreeable appearance which it presents. The condition is a passive hyperemia, somewhat inclined to stasis and accompanied by some infiltration and hyperplasia of the tissues.

The second stage of acne rosacea is the inflammatory, and is really that to which the name is properly applicable. It is simply the inflammatory stage which is naturally the sequence of the hyperemic. It is an exaggerated form, and here we have always a greater generalization of the symptoms. The color is a much brighter red in hue, and the parts involved are the nose, cheeks, chin, the space between the eye-brows, and not infrequently the entire forehead. The nose is markedly involved, the tip being shiny and often bulbous in form, as well as painful to the touch. Bright red branching lines are interspersed through each affected area. They are comparatively long and taper away until they are entirely imperceptible to the naked eye. They are comparatively subepithelial, and consist of enlarged capillaries, whose tendency it is to increase in caliber and thus aggravate the inflammatory condition, which has declared itself by bringing increased quantities of blood to the affected parts. Whilst some cases do not progress any farther, in many a distinct eruption of a papular or pustular character manifests itself. It is the latter form of lesion which predominates, giving a distinctly acneic appearance to the face. The diffuse and bright redness present, together with the enlarged capillaries, are sufficient to distinguish a case from acne vulgaris or from sycosis, for either of which it might be mistaken by an uninformed observer.

In the third, or hypertrophic stage, we have the final expression of the trouble, but before considering this the etiology and treatment of the forms described will be taken up. To begin with, acne rosacea is essentially chronic, and this applies with equal truth to all of its stages. The causes of acne rosacea are numerous and varied. Among some of these causes the following may be mentioned: Indigestion, both intestinal and gastric, as well as dilatation of the stomach. A hyper-acid condition of the stomach will also act as a causative factor. Excesses in eating or drinking, especially indulgence in alcoholics, are prolific causes of acne rosacea. Exposure to either heat or cold will bring about angio-neurotic changes in the integument of the face, which finally culminate in acne rosacea. Uterine disorders not infrequently act as causative factors in a very active manner. It has been asserted that stricture, or an atonic condition of the male urethra, has brought on the trouble, which was relieved by the systematic use of steel sounds, but this lacks confirmatory proof at the hands of others. There can be no doubt whatever that, as has been pointed out by a number of rhinologists, nasal catarrh is often the active causative agent in the production of acne rosacea of the hyperemic type. From the very large list of causes, it will easily be seen that the trouble is far from being such a simple one as might be supposed. The determination of the etiological factors in any given case is a complicated problem, requiring much research and careful investigation in order to arrive at a correct and positive conclusion. Moreover, it must not be forgotten that the determination of any

one single cause is sufficient. It is far from rare to find that several are at work which may be interdependent or entirely foreign to one another, and yet all conspiring to the same end of producing the cutaneous affection which is present. It is very much for this reason that many cases are so stubborn to treatment and even apparently incurable.

It will follow from what has been said that the treatment of the trouble should be directed as much to the underlying cause of the disease as to the condition which presents itself. It is also as important that the general treatment should be carried out in a complete and efficient manner if results of a favorable nature are to be expected. The digestive system is one which is almost invariably at fault as well as that whose proper performance of functions is most frequently neglected. A very careful inquiry into any deviation from the normal should be made and judicious management employed, more especially in the way of a proper selection of food and regulation of diet. But it is unnecessary to enter into any fuller discussion of this part of the subject, as it would involve a consideration of too many conditions and their treatment, which properly appertain to the broader domain of general medicine and to the intricate speculations of a number of specialists.

What concerns us more directly is the consideration of the local measures which should be employed. Here, again, we are confronted by a quantity of material which attests to the marvelous ingenuity of therapists, and, unfortunately, also attests to the fact that no certain method applicable to all cases has yet been devised. The methods employed are both medicinal and surgical. To the former is to be accorded the merit of simplicity of application. Pre-eminent in the list of remedies are the reducing agents, or such as have a tendency to contract the capillaries and thus reduce the supply of blood to the parts, and in that manner aid in subduing inflammation by withdrawing from the tissues the pabulum so necessary to carry on this process. Sulphur and its various combinations may be included among the most valuable of the reducing agents which we possess, and there is no doubt that among those easily prepared we have many valuable aids. The *facile princeps* of all, in my opinion, is without doubt that form which seems to be but comparatively little known by practitioners in general, and which is but rarely prescribed except by those who devote particular attention to diseases of the skin. The formula of this lotion is as follows:

℞ Calcis vivæ ..... ℥ss.
Sulphuris sublimati ..... ℥j.
Aquæ ..... ℥x.
M. Coque ad. ℥vj., divide et filtra.

The boiling of this must be carefully done over a water bath in a graduated vessel. The filtration must also be closely looked after, and the

filtrate should be perfectly clear. If it is not clear the boiling has not been thorough or the process of filtration has been imperfect. The color should be ruby red.

This should be applied thin at night and be followed in the morning by an ointment. If it be preferred an ointment may be applied both night and morning. The ointments may contain any of the following reducing agents in varying proportions: Sulphur, ichthyol, resorcin or salicylic acid, either alone or in combination. The following formulas are given so as to convey an idea of the method of ordering and strengths to employ:

℞ Sulphuris precipit ..... ℥ss–℥j.
Ung. aquæ rosæ ..... ℥j.
M.

℞ Sulphuris precipit ..... ℥ss.
Resorcin. ..... gr. xv.
Ung. aquæ rosæ ..... ℥j.
M.

℞ Ichthyol ..... ℥j.
Lanolini puriss.
Ung. aquæ rosæ ..... aa. ℥ss.
M.

℞ Acidi salicylici ..... ℈j.
Ichthyol ..... ℥ss.
Ung. aquæ rosæ ..... ℥j.
M.

Of course there is no limit to the possible combinations which may be made, and the amount of active agent employed must be governed entirely by the susceptibility of the skin to its irritating influence, for every one is an irritant. On this account the factitious redness produced by the remedy must not be confounded with the color due to the disease.

Whilst these applications will prove sufficient in ordinary cases of acne rosacea, others will be found necessitating much more strenuous measures, and it is in these that surgical procedures are indicated. Electrolysis will be found of the highest value in the destruction of the blood vessels which show themselves so prominently in the second stage. The electrolytic puncture coagulates the blood in the vessels and not only removes an unsightly appearance, but removes a prominent aid in promoting inflammation. Multiple electrolytic punctures are also employed to produce a greater destruction of capillaries and aid in the resorption of effused and hyperplastic products of inflammation. Linear and quadrilled scarifications, by means of Vidal's scarifier, are also frequently practiced, but one care should always be taken, viz., that the scarifier be very thin and that the incisions be of a sufficient depth. Another method which has been employed in lieu of the electrolytic needle is Unna's *microbrenner*, an instrument constructed on the plan of the Paquelin thermocautery, whose point, however, is practically a needle. By means of punctate cauterizations the vessels are de-

stroyed and the thickening of the skin diminished. The disadvantage consequent on the use of this instrument lies in the production of scars.

The third stage of acne rosacea, which is better known as "rhinoplyma," is the hypertrophic condition, which may be constantly met with in our streets, and which is popularly known as "rum nose," or, as the Germans call it, *pfundnase*. The nose in these cases often assumes enormous proportions, presenting a tumor-like appearance. A good example of the appearance, history and treatment of a marked example is the following, which I reported to the First Pan-American Medical Congress.*

Mr. X—— was about 72 years of age when he applied for treatment. He was of a rather robust constitution, and apparently in good health; he furthermore stated that he had never been ill. His occupation being that of a saloon-keeper, and being of a social disposition, he indulged in alcoholics, and, as a result, acne rosacea developed. He did not particularly notice the time when his affection began; but he observed an enlargement of his nose some six years before he applied for relief. Some little time before this last he had seen that the enlargement was progressing rather rapidly, and the dimensions were assuming proportions of a rather alarming nature to his friends. He, however, paid but little attention to the appearance presented, and he would, in all probability, never have sought relief had it not been for a circumstance which I do not remember having ever heard mentioned in connection with this trouble. It simply consisted in the fact that the hypertrophy became so marked and there was so much adventitious tissue developed that the weight of the superincumbent mass pressed upon his nostrils to a marked degree. This pressure was so great that he could no longer breathe comfortably. The weight of the tumor was such that it produced stenosis of the nostrils, and, as a result, the patient was forced to breathe through his mouth, a condition, which, only uncomfortable at first, finally became intolerable.

The condition presented by the patient, when he applied for relief, was as follows: He appeared to be in good health, somewhat inclined to be stout. His hair was gray, complexion florid, and skin rather flabby. His nose was enormously hypertrophied. The deformity consisted of three masses or lobes, one central and two lateral, attached at their bases by rather large pedicles, as shown in Figure 2. Each lateral mass somewhat pear-shaped, the central one having the appearance of an inverted pyramid. Taken altogether, the hypertrophied portion would make a large handful, and weighed about two pounds. The surface of the integument was irregular, the openings of the ducts patulous, and the mass felt hard to the touch. It was red and shining, and somewhat nodulated in parts.

In such a case there seemed to be but one method of procedure to follow, and it is, on the whole, the best for such cases—to remove the entire

*Transactions First Pan-American Congress, Vol. II., p. 1,688, *et seq.*

mass by the knife. No other method can afford any hope of permanent relief, and it is, upon the whole, the quickest, best and most thorough method. This was accordingly done in the case under consideration in the following manner: The lobes of the tumor were removed, leaving a small flap of the integument of each in order to cover the surface denuded.

FIG. II. Rhinophyma—Before Operation.

The flap in each case was derived from the lower part and laid up in such a manner as to bring the line of stitches at that part of the nose which corresponds to the sulcus of each ala. In the case of the middle lobe, the line of sutures naturally lay directly across the nose. In the dissection of the skin flaps care was taken to make as thin an integument as was consistent with the preservation of the nutrition of the tissue. Healing took place

per primam, the dressing used being iodoform collodion. The final result was a most excellent one, as may be seen in Figure 3. The only ontoward circumstance, and this is hardly noticeable, is, that the nostrils are possibly a little more open than they should be, but this could hardly be avoided in such an extensive operation. This slight tilting up of the nares was no doubt due to the cicatricial contraction which took place at the site of the sutures. This amounted to but little, although it points to the necessity of allowing for contraction both of the skin and of the scar in such cases. In plastic operations of this character, however, it is a most difficult matter to estimate exactly the amount of skin required, and there can be no doubt that a little too much economy is to be preferred to generosity in

FIG. III. Rhinophyma—Afer Operation.

view of the fact that any redundant tissue is prone to take on the hypertrophic process rapidly.

In rhinophyma we have a distinct hypertrophy of fibrous tissue, the density of the structure being marked. The skin covering the growth is thin, retention cysts of sebaceous matter appearing in the substance of the growth. In the case detailed a large retention cyst nearly half an inch in diameter was observed. Enlarged vessels were observed, the papillæ were atrophied, and some portions of the structure seemed to point to the presence of a degenerative process.

The subject of rhinophyma is one which possesses much interest, and is deserving of much more study than has been devoted to it up to the present time.

EYE SYMPTOMS OF BRAIN TUMOR,*

By JAMES MOORES BALL, M. D., of St. Louis,
Professor of Ophthalmology in the College of Physicians and Surgeons.

THE EYE symptoms caused by brain tumor are numerous and include paralysis of the third, fourth or sixth nerves, uni or bilateral exophthalmus from pressure on the cavernous sinus, changes in the fundus oculi, diminution of visual acuity, concentric limitation of the visual field, and hemianopic contraction of the field of vision. It will be sufficient for our purpose to divide the topic into:

(1) Changes in the fundus oculi, and

(2) Derangement of sight.

At the outset, we must remember that there are a few cases of brain tumor in which there are no symptoms, ocular or other. These are rare cases in which a brain tumor grows slowly, without increase of intra-cranial pressure, and without irritation in the vicinity of the lesion.

1. CHANGES IN THE FUNDUS.

Of all the symptoms of brain tumor double optic neuritis is the most important in diagnostic value, because (1) it is an objective sign, (2) it is present at some period in the great majority of cases, (3) the most common cause of double optic neuritis is brain tumor. While in the vast majority of cases of intra-cranial tumor the optic neuritis is bilateral, the degree of inflammation is rarely, if ever, the same on the two sides at the same time. Cases of one-sided optic neuritis in brain tumor do occur, however, and in these rare instances Dr. Hughlings Jackson believed that the disk on the side opposite to the brain lesion is the more frequently affected; but, as Bramwell has remarked, the number of these unilateral cases is entirely too small to permit us to draw definite conclusions.

OPHTHALMOSCOPIC APPEARANCES.

In brain tumor we find either papillitis or optic nerve atrophy. Papillitis is evidenced by a swelling of the intra-ocular end of the nerve. The clean-cut boundary line between the optic disk and retina is lost, the nerve seeming, on account of exudation, to overlap the adjacent retina, or the change may not be so well marked, the only abnormality noticed being a slight engorgement of the veins without swelling of the disk, and with blurring of its edges. As a rule, however, the neuritis of brain tumor is a pronounced condition known by the term of "choked disk." In typical cases the picture, when once seen, is easily remembered. The swelling of the papilla, great enlargement of the veins from compression by the swollen nerve fibers, the arteries diminished in size, the change in color of the

* Read at the ninth annual meeting of the National Association of Railway Surgeons, at St. Louis, Mo., May 1, 1896.

nerve—all are present in a marked case. This disease runs a chronic course, and after many months the signs of inflammation are succeeded by those of atrophy. In atrophy the ophthalmoscopic appearance is the very opposite of that of papillitis. In atrophy the nerve-head presents different appearances according as the atrophy is simple, *i. e.*, non-inflammatory, or secondary, *i. e.*, inflammatory. As we may be called upon to examine a case in the atrophic stage, it is of great importance that the ophthalmologist be able to distinguish the simple from the secondary form of optic nerve atrophy.

In simple atrophy the optic papilla is pale, often of a bluish-white color, its edges well defined, the gray dots of the lamina cribrosa are distinctly seen over a large area, and the retinal vessels are unchanged in size. The optic nerve-head presents the excavation of atrophy. This excavation is to be distinguished from the excavation of glaucoma on the one hand and from a physiological cupping of the disk on the other. The physiological excavation can be at once excluded by stating that it never involves the entire papilla; if there be an excavation involving the whole papilla, it is either glaucomatous or atrophic. If glaucomatous, there will be recession of the lamina cribrosa, and the central retinal vessels are seen climbing over the edge of the excavation, but they cannot be focused at this point and also at the bottom of the excavation at the same time. The edge of the excavation in glaucoma is overhanging. The tension of the eye is increased except in glaucoma simplex and the retinal arteries either pulsate spontaneously or on moderate pressure. The atrophic excavation, while involving the entire papilla, is not so deep as that of glaucoma. There is no recession of the lamina cribrosa; the optic nerve is white; there is no increase of tension; the arteries do not pulsate spontaneously.

In inflammatory atrophy the papilla is traversed by connective tissue formed by the organization of an exudate. At first the papilla is grayish white; its margins hazy; the veins distended and tortuous; later the papilla is bluish-white or pure white, but the lamina cribrosa is not exposed to view (Fuchs). At this stage the papilla is small, irregular and shrunken; the arteries and veins are contraced and often enclosed in white streaks (Fuchs).

The causes of simple atrophy are: (1) spinal disease, particularly locomotor ataxia, which also generally presents the Argyll-Robertson pupil and absence of patellar reflex; (2) brain affections, among which are disseminated sclerosis, tumor and progressive paralysis of the insane, and (3) orbital disease, as orbital tumor, fracture involving the optic foramen, etc. In injuries to the nerve there are at first no ophthalmoscopic signs except the site of the lesion be so far forward that the central vessels are severed. In that case the picture is similar to the one found in embolism, viz., the retina is bloodless.

Valuable as is the ophthalmoscope in brain affections, the information it conveys is general, not localizing. Although double optic neuritis is present in 80 or 90 per cent. of all cases of brain tumor, its absence does not exclude brain tumor, for these reasons: (1) the eyes may not be involved, the growth being remote from the optic tracts; (2) optic neuritis may have been present and have disappeared before the ophthalmoscope is used.

The conditions causing optic neuritis have been tabulated by Mr. W. Adams Frost,* of London, in such a happy manner that I offer no apology for presenting his table:

LOCAL CAUSES—

Cellulitis of orbit.
Periostitis of orbit.
Wounds of orbit.
Tumours of orbit.
Thrombosis of orbital veins and their tributaries, especially the *vena centralis retinæ*.
Hæmorrhage into the nerve sheath.
Wounds or tumours of the optic nerve.
Wounds of the globe.

INTRA-CRANIAL CAUSES—

Meningitis—*a*. Traumatic.
" *b*. Tubercular.
" *c*. Syphilitic.
" *d*. Pyæmic, especially from disease of middle ear.
" *e*. Epidemic cerebro-spinal.
Tumour.
Abscess.
Aneurism (especially in the cavernous sinus).

GENERAL CAUSES—

Acute febrile diseases.
Albuminuria.
Influenza.
Anæmia (all forms).
Scurvy.
Diabetes.
Malarial poisoning.
Syphilis.
Poisoning from lead and possibly other agents.
Leucocythemia.
Pyæmia.
Hereditary predisposition.

Valuable as is double optic neuritis as a sign of brain tumor, we must remember that in some few rare instances all the rational signs of cerebral tumor have been present during the life of a patient on whom post-mortem examination failed to reveal anything wrong. Such a case occurred in the practice of Dr. Hughlings Jackson, and Dr. Sutton made the autopsy.

Double optic neuritis does not help us in localizing the growth. Bramwell says: "Perhaps tumors of the medulla are less often attended with double optic neuritis than tumors in other parts." Starr's opinion is that: "Tumors of the cerebellum and corpora quadrigeminia, and tumors upon the base of the brain and in the basal ganglia, produce optic neuritis more constantly and earlier in their course than tumors situated in the cortex or centrum ovale. Optic neuritis is usually double, though it always appears first in one eye, and is rarely equally intense in both eyes, but in a few cases it has been found in one eye only, and then is thought to indicate disease of the nerve in the orbit or in front of the optic chiasm, rather than a distant tumor." (Am. Text Book of Nervous Diseases, p. 484.)

*W. Adams Frost, F. R. C. S. The Fundus Oculi, p. 124. The Macmillan Co., 1896.

II. DERANGEMENTS OF SIGHT.

In many cases of double optic neuritis vision is absolutely normal, both as regards visual acuity and the field of vision. Hence, it is not sufficient to use the test types and record the visual acuity. The ophthalmoscope should be used in every case of suspected brain disease. The derangements of sight which occur in brain tumor may be classified as follows:

1. Diminution of visual acuity.
2. Restriction of the field of vision.
3. Hemianopic contraction of the visual field.

Of these the first and second have no localizing value, being found in many and diverse conditions. Hemianopic contraction of the visual field is a localizing symptom of great value in brain tumor. Hemianopsia is met with, also, in hysteria and hemicrania.

Hemianopsia, in order to be understood, presupposes a knowledge of the anatomy of the optic tracts. Remembering this, and recalling the partial decussation of fibers in the chiasm, we are prepared to profit by a study of hemianopsia in brain tumor. Hemianopsia is a deficiency of one-half of the field of vision, the dividing line being vertical. It is called homonymous when the same side of each field is lacking, and the terms right and left are further descriptive of the part of each field which is blank. If both temporal fields are wanting, we speak of temporal hemianopsia; if both nasal, nasal hemianopsia. We speak of superior and inferior hemianopsia when the dividing line is horizontal. Such hemianopsias are due to local causes, *i. e.*, plugging of the artery supplying the upper or lower half of the retina. Inasmuch as rays of light cross in the eye, inability to see objects in the right half of the field indicates a lesion of fibers supplying the left half of the retina, and vice versa. In superior hemianopsia the lower half of the retina is at fault.

The localizing value of hemianopsias may be expressed as follows: Bilateral temporal hemianopsia indicates an antero-posterior division of the chiasm, as occurred in Weir Mitchell's case, in which an aneurism had entirely divided the chiasm in the median line. The outer half of each retina retained the power of vision. Quite a number of cases of this form of hemianopsia have been published. Hemianopsia, however, is rare in diseases of the chiasm, and then is sharply defined only for a time, since we have to deal with progressive processes, as tumors, syphilitic and tubercular growths. (Knies.)

Nasal hemianopsia is extremely rare, as may be judged from the anatomical facts. A single lesion could produce it only under very peculiar conditions. It might result from bilateral symmetrical lesions. Nasal and temporal hemianopsias, so far as known, are due to lesions in the anterior fossa of the skull, involving the chiasm. One-sided nasal hemianopsia

would come from a lesion of the outer part of the chiasm on the same side as the eye affected.

Lesion of the optic tract, between the optic chiasm and geniculate bodies would cause lateral hemianopsia. Lesion of the central fibres of the nerve between the geniculate bodies and cerebral cortex would produce lateral hemianopsia. Lesion of the cuneus causes lateral hemianopia. Lesion of the angular gyrus may be associated with hemianopsia, sometimes crossed amblyopia, and the condition known as mind blindness. (Osler.)

DIAGNOSIS.

Given a case of brain tumor in which there is hemianopsia, where is the lesion? To determine whether the lesion be in the tract between the chiasm and the geniculate bodies, or in the central portion of the fibers between these bodies and the visual centers: Osler says this can be determined in some cases by Wernicke's hemiopic pupillary inaction. The pupil reflex depends on the integrity of the retina, the fibers of the optic nerve and tract, and the nerve center in the geniculate bodies, which receives the impression and transmits it to the third nerve, along which motor impulses pass to the iris. If a bright light is thrown into the eye and the pupil reacts, there is no question about the integrity of this reflex arc. In lateral hemianopsia the light can be thrown so as to fall upon the blind half of the retina. "If, when this is done, the pupil contracts, the indication is that the reflex arc above referred to is perfect, by which we mean that the optic nerve fibres, from the retinal expansion to the center itself, and the third nerve are uninvolved. In such a case the conclusion would be justified that the cause of the hemianopsia was central; that is, situated behind the geniculate bodies, either in the fibers of the optic radiation, or in the visual cortical centers. If, on the other hand, when the light is carefully thrown on the hemiopic half of the retina, the pupil remains inactive, the conclusion is justifiable that there is an interruption in the path between the retina and the geniculate bodies, and that the hemianopsia is not central, but dependent on a lesion situated in the tract." (Osler, p. 848.)

"In all cases where the defect in the visual field is contained in one eye only, or in which, while there are defects in both eyes, they are not symmetrically situated, the lesion must be situated in the optic nerve itself—that is, in front of the chiasm—since all interruptions on the farther side of the chiasm result in the production of symmetrical defects in the visual fields." (Fuchs.)

"It is not generally appreciated that hemianopsia is a symptom often entirely overlooked by a patient, a case having been recently reported by Bleuler[1], in which, though well-marked hemianopsia existed, the patient

[1]Archiv für Psychiatrie, Vol. XXV., page 39.

was entirely unaware of any visual defect. It is therefore exceedingly important that the extent of the visual field in both eyes should be carefully tested in every case of suspected brain disease, each eye being tested separately." (Text Book of Nervous Diseases, by American Authors, Philadelphia, 1895, p. 492.)

DISCUSSION OF DR. BALL'S PAPER.

Dr. C. D. Wescott, Chicago: "Dr. Ball has given us a most excellent résumé of our knowledge of this subject. In fact, he has covered all the points so far as they occur to me, and I have absolutely nothing to add in regard to the eye symptoms of brain tumor. I want to call attention, however, to the fact that this paper emphasises better than anything else could have done, perhaps, the point that our increasing knowledge of the relation of the eye to the nervous system is augmenting our possibilities of diagnosis in brain and nerve lesions. It also emphasizes the necessity for the study of the ophthalmoscope and familiarity with its use in the practice of general surgery and medicine. When most of us were students we had no opportunity to study the ophthalmoscope; we were not encouraged by our teachers to use it in general diagnosis. To-day in our best schools a practical course in ophthalmology is a requirement for graduation. In Rush Medical College we have had such a course for the last two years, and it has been obligatory. It is surprising with what readiness the students acquire a practical knowledge of the use of the ophthalmoscope. I have risen chiefly to suggest that we all do more in this direction; that we all study the simple means by which we may acquire the use of this important aid in general diagnosis. And while on this point, I want to mention the eye model which has been furnished by Queen & Co., of Philadelphia, as an aid to the acquirement of ophthalmoscopy. This company has put upon the market a paper model, with which we may imitate the various conditions of refraction of the eye, and with which, if we are the patient, we may easily acquire the habit of relaxing our accommodation, which is the essence of ophthalmoscopy. After a few hours' practice with the ophthalmoscope and this model, one is prepared to examine a patient's eye.

"The best text book is Gower's Medical Ophthalmoscopy. It is written in a very pleasing style and unfolds the possibilities of the ophthalmoscope in such an attractive way that you will all be pleased to take it up, I am sure.

Work Has Begun.—Several of the medical colleges of St. Louis have begun the winter's work. Most of them have opened with large classes. We learn that the Barnes Medical College had over 300 students on opening day, and the College of Physicians and Surgeons had over 200 in attendance.

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DOCTOR BORCK'S REMINISCENCES.

Beginning with our November issue Doctor Edward Borck will furnish the first of a series of articles dealing with reminiscences and personal experiences in St. Louis. The subject of the first article is "A Name." This will be followed by "A Memory of the Late College for Medical Practitioners," "Dispensaries," "Women Doctors," "The Doctor as a Chronic Kicker," "The Medical Code or the Ten Commandments," etc., etc. We predict that these articles will excite great interest and will be read with pleasure.

MOODY'S MAGAZINE OF MEDICINE.

From the Southland, whence comes so many things of beauty and worth, now appears a new candidate for professional favor. Moody's Magazine of Medicine is like a soothing ocean breeze dispersing the heat of a sultry day. It is absolutely unique and refreshing—this medical *magazine*. And it is a magazine in every sense. Filled with interesting articles, which will appeal to the doctor's wife as well as to the doctor, elaborately illustrated, beautifully printed, and independent in its editorials, it is at once a luxury and a necessity. Ralcy H. Bell, M. D., of Atlanta, Ga., is the editor. The subscription price is $2.00 a year.

REPLY TO DOCTOR LOFTUS.

We were not a little surprised to see in the *St. Louis Republic* a few days ago a letter from Dr. Loftus of Heine Marks conspicuosity, in which he cast a few undeserved remarks in the direction of medical college professors and the medical colleges in general. These remarks ought not to go unresented. We ask him why he selected the public press instead of the ample medical press of this city for his diatribe. We would be overjoyed to have him name some physician, noted for his great service to the profession, either in a literary or experimental way, celebrated in modern times, that did not do the work for which he was noted while teaching in some medical college. We would like to have him name some great discovery in modern medicine or surgery that was made outside of and completely disentangled from some medical college. We would be quite glad to have him mention some great physician, noted for his learning, always excepting Dr. Loftus himself, who has not developed his character and made his reputation in connection with some medical college.

We would like to ask him where he can see any study going on into the mysteries of medicine outside of the medical college unless it be connected with some paid laboratories conducted by the State, and will he please note either in the *Republic* or some other source some real unselfish and valuable work performed in these public laboratories?

Medical colleges are no nearer perfect, we suppose, than other human institutions, but we will assert that they average up pretty so-so with most institutions of a kindred nature. The colleges teach their share of error, but the science of to-day has always proved to be error tomorrow, and we believe that the medical college professors are about as quick to nose out the falsehood and correct it as the rest of the profession. You talk a great deal about the raw, new material that the colleges are sending out in competition with the practitioners already in the field. We will make a little suggestion for legislation: Suppose the practitioners were all obliged to come up about once in five years and pass the same examination that is given to the young bucks just going out. We would then have a practical test of who ought to resign from the practice of medicine and be relegated to the colleges for an additional six months or a year.

The colleges will still have a reason for existence for a good many years in renovating frayed out practitioners. They come in every winter to get brushed up, and the first new idea that strikes them generally knocks them silly; it has been so long since they had one.

If a young physician wants to be thought a student and wants an opportunity to keep himself posted and up with the times, he endeavors to connect himself with some good college, and it forms a very efficient means of growth for him both in reputation and in real capability. When you

see a practitioner of medicine railing at the colleges, one of three things is gnawing at his vitals: He is misinformed and ignorant of the real work the colleges are doing, or so stupid that no college will have him associated with it, or he is unable to raise the money to contribute his share to the expense of equipping and running a medical college. Which horn will the Doctor take? R. C. B.

PROFESSIONAL EDUCATION IN THE UNITED STATES.

The report of Mr. Miller* on professional education is worthy of a very careful study. It is interesting to notice the donations which have been received by theological schools of the United States during the years 1893 and 1894. The sums footed up to $1,152,000. There is no mention made of any endowments received by medical schools during the same time. The number of medical students during the year was 21,802; the number of theological students, 7,658; the number of dental students, 4,152; the number of pharmaceutical students, 3,658; the number of nurses, 2,701, and the number of veterinary students, 554. There has been no great increase in the number of theological students during the past ten years, but in that time the number of medical students has almost doubled. The eclectics have less than 1,000 students, and the homœopaths less than 2,000 students, while the students of the regular medical colleges have increased from 10,000 to 17,500 since 1883 and 1884. The proportion graduating each year is 19 per cent. of theological students, 21 per cent. of the dental students, 24 per cent. of the medical students, 27 per cent. of the pharmaceutical students and 34 per cent. of the law students. Five and one-tenth per cent. of the students of the regular medical schools are women, of the homœopathic schools 21.1 per cent. are women, of the eclectic schools 10.7 per cent. are women. The number of women in the theological and law schools is not given. There are no homœopathic medical schools in the South.

Law students can obtain admission to the practice of their profession in a shorter time than students of theology, medicine or pharmacy. The course of study in law schools is much shorter than in any other professional schools. In eight law schools only one year of study is required before graduation. Some require two years, and one or two require three years. While students can graduate in eight law schools after only one year of study, there is not a single school of theology, medicine, dentistry or pharmacy where students can receive the full degree in one year, and in most of these schools a course of three years is required. While there are only about one-third more physicians than lawyers in the United States, there are three times as many medical students as law students. Not all law students take

* Bureau of Education Report for 1893–94. Wash. 1896.

the short course required in the law schools, but depend upon private tuition and practice in law offices. Although a large number of poorly qualified lawyers may obtain little practice, and hence may be continually dropping out into other lines of business, it would seem to be more prudent, both for their own sakes and that of the profession, that they be required to take a full and regular course of instruction. Objection is made to medical students engaging in practice while preparing for their profession, and the same might be said of law students. It certainly seems anomalous that medical schools have no endowments, and yet they are required to give long courses of study in expensive buildings with expensive apparatus, and do this according to law and under very strict supervision, while theological schools are richly endowed and students of law need take no course of study to prepare them for their profession and they find themselves little restricted by rules, regulations or examining boards. If it is the duty of the State to see that medical men are prepared for the study of medicine, it is equally the duty of the State to pay for and maintain adequate medical education.

BAYARD HOLMES.

The Asclepiad.—We have recently had the pleasure of reading some old copies of the *Asclepiad*, Sir Benjamin Ward Richardson's quarterly journal. It is, as the title page announces, "a book of original research and observation," and is unique in being entirely the product of this gifted author and eminent practitioner. Those who appreciate original research, original thought and practical ideas will do well to follow this master. His language is as pure as a running stream, and his thoughts are sure to interest every cultured physician.

Good News for 1897.—During the coming year important articles will appear in this magazine from Mr. Reginald Harrison, F. R. C. S., of London; Mr. W. M. Beaumont, Bath, England; Professor Unna, the noted dermatologist, of Hamburg; Professor Massei, the laryngologist, of Naples; Dr. Thomas More Madden, of Dublin, and other noted foreigners. The series of articles on cutaneous diseases and syphilis by Dr. Ohmann-Dumesnil will be continued. These articles alone will be worth many times the cost of the JOURNAL. The editor will continue the series of sketches of old surgeons and anatomists. Many of the leading physicians of America have promised to contribute during 1897. We grow.

HISTORICAL SKETCH.

MICHAEL SERVETUS, THE DISCOVERER OF THE PULMONARY CIRCULATION, 1509-1553.*

By James Moores Ball, M. D.

IN THE annals of the Christian church and in the history of our art the name of Michael Servetus occupies a place of equal prominence but not of equal respect. By the ecclesiastical historian he is still regarded as a mocking blasphemer whose chief crime was a denial of the triune God; by the historian of medicine he is looked upon as a great scientific discoverer who opened a path for progress in medicine which, although not entirely unexplored, was but little understood. The former can see in him only a fierce heretic who, condemned to die at the stake, met with his just deserts; while the latter views him as a martyr to the cause of science and the victim of the religious fanaticism of the age. It is more than probable that the truth lies between these extremes, and it will be my endeavor to give an impartial account of the life, discovery and fate of this erratic, brilliant and unfortunate man. That which has rendered the name of Servetus immortal was the discovery of the lesser or pulmonary circulation.

Michael Servetus, whose Spanish name was Miguel Serveto, was born either at Tudela, in the old Spanish Kingdom of Navarre, or at Villanueva, in Aragon; but whether here or there, or in the year 1509 or 1511, cannot be said with certainty. Little is known of his early life. It is certain, however, that he was educated for the priesthood of Saragossa, where he made the fathers of the church his principal study; and it was here that a foundation was laid for the heresy which, in later times, was to cost him his life. Leaving Saragossa and abandoning his priestly studies, Servetus entered the University of Toulouse as a student of the law. In 1530, in company with Quintana, father confessor to Charles V., he traveled into Italy to witness the imperial coronation at Bologna. Here, associating with anti-trinitarians, he was strengthened in his doubts regarding the orthodox teaching. On his return he took the liberty to visit Œcolampadius, a Swiss reformer living at Basel, and Bucer of Strasburg, to whom he communicated his views. These Protestants, however, instead of refuting his argument, denounced him as a heretic, loaded him with insults and ignominy and warned all Christian teachers to shun him as a dangerous foe.

At this time all Europe was ablaze with religious excitement. The spark lighted by Luther had extended with marvelous rapidity. "In Germany the Lutheran word caused a thousand sects to spring up, each of which wished to establish a Christian church upon the ruins of Catholicism." It was a time when debate was carried on with a fierceness of which we can have no adequate conception. It was a time of blood and

*Reprinted from Moody's Magazine of Medicine.

of fire, of martyrs and murders, of scaffolds and stakes, and machines of torture. The human mind was in the depths of chaos while liberty of conscience and of speech were unknown. Among the many sects were the anti-trinitarians, who, like Servetus, admitted but two persons in God.

MICHAEL SERVETUS.

Hated by all religious parties and misrepresented by officious enemies, Servetus, in his twenty-second year, filled with the enthusiastic dreams of youth, decided to proclaim his religious views to the world. And why not?

Had not Luther, Calvin, Melanchthon and all the others of the holy host issued their books? Accordingly, in 1531 there was issued at Hagenau a work bearing the following title: *De Trinitatis Erroribus, Libri Septem, per Michaelem Serveto, alias Revés, ab Aragonia, Hispanum*, 1531.

Neither the name of the city in which it was printed nor that of the publisher was given. In fact, more than twenty years passed before these details came to light. The truth was learned only at the author's trial at Geneva, in 1553. The book raised a storm. Had Satan appeared before the faces of the reformers their astonishment would have been little greater. The Protestant cities denied all knowledge of the author. Bucer denounced him from the pulpit and said he deserved disembowelment, while Luther pronounced the work a fearfully wicked book. In 1532 Servetus issued his *Dialogues on the Trinity*, in which "he weeps over the barbarisms of his style, but does not repent his bold impieties." A fierce debate was carried on with Œcolampadius, after which Servetus started for France. Protestant Germany and Switzerland were clamoring against the man who dared to publish heretical doctrine; in Catholic France the heretic, if known by his true name, would be in danger. Something must be done. A change of name was the natural solution to the problem, and Michael Servetus, alias Revés, became Monsieur Villenenúve. Under this name, or its Latin form, *Villanovanus*, Servetus was entered as a student of mathematics and physics at Paris; under this name he edited an edition of Ptolemy for the Trechsels at Lyons, practiced medicine for twelve years at Vienne, and this was the name he gave to the judges at the Geneva trial. The same year he began the study of medicine in Paris, where Sylvius, Guinterus and Fernel were lecturing. Ambrose Paré, the father of French surgery, was a fellow student at the Hotel Dieu. Owing to his excellent preliminary education Servetus made rapid progress, and two years after his matriculation he issued a small book on the use of syrups in medicine. The title of this rare book reads as follows: *Syruporum universa ratio, ad Galeni censuram diligenter exposita, Michael Villanovano, authore.* First issued at Paris in 1537, it was reprinted at Venice in 1545 and Lyons in 1546. In this work, which refuted many of the cherished statements of the Greek and Arab writers, the spirit of a bold reformer can be plainly seen. In that day to deny the authority of Galen was scarcely less a crime than to deny the existence of God. For many centuries the writings of Hippocrates and Galen had formed the sheet-anchors of the medical profession. The book of Servetus raised a furious storm among the learned doctors; the quarrel grew so fierce that parliament had to interfere and orders were given to physicians to live in peace with the Spaniard. While the combat was on ink flowed in floods. It was not until 1543, six years after the issuance of the tract on syrups, that the Anatomy of Vesalius appeared, in which many of the errors of Galen were corrected. Servetus was not merely a reformer, he was a pioneer, a fearless seeker after truth, who was not to be appalled by weight of authority or the credulity of mankind.

This man who had been by turns student, theologian, reformer and physician, was soon to appear as an astrologer. He foretold the future. Students flocked in crowds to hear him. One day he predicted that in the following night Mars would be eclipsed by the moon, and that this event indicated a general conflagration, the beginning of pests, the death of

kings, the ruin of the church, and other dire events. The faculty of medicine of Paris caused an injunction to be laid on Servetus, as "on all those who meddle with the making of almanacs not to speak, and write *de eventibus rerum externarum*, who ought to be satisfied with writing and speaking only *de ordine rerum naturalium*." The decree runs: "Prohibition and defense to all printers to print an almanac and prognostications forbidden by the divine and canonical constitution, and the said court has ordained, and does ordain, that all the ephemerides and prognostications of this year shall be taken and seized, wheresoever they shall be found, and shall be brought to the clerk of this court. Done this 8th of March, 1538."

Servetus met John Calvin for the first time at Paris in 1536. The two discussed religious topics with greath warmth and each went his way. Little did they dream that seventeen years later they would meet as principals in one of the most tragic scenes recorded in history. Years passed Servetus continued his professional studies in various schools—theology and Hebrew at the University of Louvain in 1537; and medicine at Montpellier in 1540. The next year he was doing editorial work for Frelon, the book publisher of Lyons. For the following twelve years he resided at Vienne, as confidential physician to a distinguished ecclesiastic, Pierre Paumier, Archbishop of Vienne. Outwardly conforming to the Roman Catholic worship, Servetus was inwardly tormented by doubts and fears and questionings. A correspondence between Servetus and Calvin was opened in 1546, and the former forwarded to the theologian of Geneva some religious tracts, and expressed his desire to visit the Swiss city. Calvin answered in tones of thunder, and told Servetus that his visit to Geneva would be at his peril. About the same time Calvin wrote to his friend Viret that if ever Servetus were to come to Geneva he would not be permitted to depart unharmed.* There was no malice in the heart of Servetus. While amusing himself over the doctrine of predestination, ridiculing the logic of the "Christian Institutes," and hurling arguments against the "free necessity" invented at Geneva in order to explain the first sin of man, he would not have harmed a single hair of Calvin's head. So guileless was he that he could not understand why Calvin ceased writing to him. Poor scholar! thou canst not comprehend the depth of hatred which fills the soul of John Calvin, but soon thou shalt know.

In 1552 Servetus was searching for a publisher for a volume of theological writings. Marrinus of Basel after examining the manuscript declined to print the book; but two printers of Vienne undertook to issue it secretly, and, finally, in January, 1553, one thousand copies of the *Christianisimi Restitutio* were struck off. This was an octavo of 117 pages, and cost its author his life. This book is of special interest to the medical profession because it contains the first account ever printed of the lesser circulation. The publication of this work led to the immediate arrest of Servetus. There is no evidence that Calvin dictated the letter which led to

*CALVIN'S LETTER TO VIRET.

"*Servetus cupit huc venire. sed a me accercitus. Ego autem nunquam committam, ut fidem meam eatenus obstrictam habeat. Jam enim constitutum habeo, si veneat, nunquam pati, ut salvus exeat.*"

TRANSLATION.

"Servetus desires to come hither, but was invited by me. I therefore can do nothing, since hitherto he has had my friendship. Yet I have determined, if he comes, he shall not be allowed to depart unharmed."

Allwoerden, §18, p. 43, quoted in Sprengel's Geschichte der Arzneikunde. Theil III, p. 36. Halle, 1794.

the arrest, but we know that he subsequently furnished samples of Servetus' handwriting for the express purpose of securing his conviction. Calvin also furnished the prosecution a copy of the *Christianisimi Restitutio* and many letters in which Servetus recorded his anti-trinitarian doctrines. Servetus did not deny his handwriting, but explained by saying that a correspondence existed between Calvin and himself "under the seal of secrecy (*sub sigillo secreti*) and after the fashion of a disputation, to see if

JOHN CALVIN.

he would be able to shake my opinion, or I his." Having been cast into prison, after three days' confinement, Servetus, with the connivance of the jail-keeper, walked out into a garden surrounding the prison, unlocked the garden gate and stood upon the highway a free man. It is said that the good angel who came to him in his hour of distress was none other than the golden-haired daughter of the gaoler who besought her father to release the skillful physician because in his professional capacity he had saved her life. In a few days the printing office which had issued the banned book

was discovered and its proprietor jailed, while all obtainable copies except three were burned. The author was burned in effigy.

Whither was Servetus to go? Hated by all religious parties and in danger of death, Michael Servetus, the classical scholar, the skilled physician, the bold but indiscreet reformer, became a wanderer upon the face of the earth. Leaving Lyons he entered Switzerland three months after his escape. On July 15, 1553, he arrived in Geneva. A month later he was apprehended. At the instigation of Calvin thirty-eight articles of accusation extracted from his writings were drawn up against him; the process lasted from August 14 to October 26. The accuser was Nicholas de la Fontain, by occupation a cook. He and Calvin were great friends; in fact, Calvin writes of him as "My Nicholas." Servetus, in the presence of the judge, was required to respond seriatim to the articles of accusation. Throughout the trial Calvin was the power behind the prosecutor. The trial ended with a verdict of guilty. Servetus was informed of his fate only on the morning of the day of his death. An hour before noon, on the 27th day of October, 1553, Servetus was brought from his dungeon to face the populace and listen to the reading of the process against him. The charge is a lengthy one and sets forth the dissemination of heretical doctrines. The sentence reads as follows:

"These and other just causes moving us, desiring to purge the church of God of such infection, and to cut off from it so rotten a member, we, sitting as a judicial tribunal in the seat of our ancestors, with the entire assent of the General Council of the State, and our fellow-citizens, calling on the name of God to deliver true judgment, having the Holy Scriptures before us, and saying: In the name of the Father, Son and Holy Ghost, we now pronounce our final sentence and condemn thee, Michael Servetus, to be bound and taken to Champel, and there being fastened to a stake, to be burned alive along with thy books, printed as well as written by thy hand, until thy body be reduced to ashes. So shall thy days end, and thou be made an example to others who would do as thou hast done."

No sooner was the reading of the sentence ended than a motley procession started toward Champel. Farel, one of the bigots of the time, exhorted Servetus to renounce his doctrines, but in this he was foiled. "The wretched man," says Farel, "could not be brought to say that Christ was the Eternal Son of God. When I urged him on this subject, he desired me to point to a single place in the Scriptures in which Christ is spoken of as the Son of God before his birth. All that could be done had no effect in turning him from this error." Champel was soon reached; the excited populace halted; Servetus was securely bound to the stake by several turns of an iron chain; a hempen rope was tied around his neck and fastened to the pillar; two copies of the *Christianisimi Restitutio*—one in manuscript, which had been sent in confidence to Calvin six or seven years before—the other lately printed at Vienne—were placed at his feet; a chaplet of straw and green twigs was in mockery tied around his head; wood was heaped about his body, the torch applied, and the soul of Michael Servetus went up in agony to its Maker amid the ribald jests and blasphemy of the people of that wicked city. Thus perished the strangest character known to medical history.

Let us now consider the question: What share did Servetus have in

the discovery of the circulation? In order to understand his contribution to science, it will be necessary to review, in the briefest terms possible, the doctrines of the movement of the blood which were held before his time. The first of the ancients who seems to have had any idea of the circulation was Erasistratus, one of the two great anatomists of the Alexandrian School of Medicine, who lived in the third century B. C. Erasistratus gave names to the auricles of the heart, named the tricuspid valve, recognized the use of the trachea as the tube which conveys air to the lungs, and declared that the veins are blood-vessels, while the arteries are air-vessels. He believed the purpose of respiration was to fill the arteries with air; the air distended the arteries, made them beat, and in this way the pulse was produced. When once the air gained entrance to the left ventricle it became the vital spirits. The function of the veins was to carry blood to the extremities.

The errors of Erasistratus were corrected by Galen (A. D. 131–200) who in turn held many erroneous views regarding the circulation. Galen proved that the arteries are blood-vessels, and to do this resorted to vivisection. He declared that the pulse was the dilation of the artery caused by the contraction of the heart. He erroneously taught that the purpose of respiration was to allow the air to enter the lungs where it cooled the blood. This theory was held as late as the last century by the so-called father of modern physiology, Albrecht von Haller. Galen said that foramina exist in the inter-ventricular septum of the heart. This great error was unrefuted until the time of Vesalius (1514–1564). Nemesius, Bishop of Emissa, a Syrian city, at the end of the fourth century wrote a book, *De Natura Hominis* in which a curious passage occurs, which shows him to have had an obscure idea of the circulation; yet it was so imperfect that he neither comprehended it himself nor made it plain to any other person. Such, then, is a résumé of the knowledge of the ancients on this subject. In the *Christianisimi Restitutio* of Servetus, we learn that the blood flows from the right ventricle of the heart by the pulmonary artery through the lungs, and by the pulmonary veins to the left ventricle. Servetus distinctly states that the blood does not pass from the right ventricle to the left, as was taught by Galen, but by a long passage through the lungs. It is in the lungs that the blood is agitated, prepared and changed in color before entering the pulmonary veins. Servetus was not only the first writer to describe the course of its pulmonary circulation, but was the first to point out the place where the venous was changed into arterial blood, viz.: the lungs. Previous to this time, and, indeed, for a century after his death, the doctrine of Galen—that the liver is the seat of sanguification—was firmly believed. Such was the discovery made by this unfortunate heretic.

So thorough was the destruction of the *Christianisimi Restitutio* that only three copies are known to exist. One is in the National Library at Paris, another in the Imperial Library at Vienna, and the third in the library of the University of Edinburgh. The Paris copy belonged to Colladon, Calvin's lawyer, and in it those passages were underscored which were considered heretical. This copy once belonged to Dr. Richard Mead, the most celebrated London physician of the last century. Mead took so much interest in the book that he desired to have it reprinted. Accord-

ingly, in 1723, a new and handsome edition, in quarto form, was half done when his purpose reached the ears of Gibson, Bishop of London. Gibson addressed himself to the censor of the press; the impression was seized, adjudged heretical, and for a second time the book of Servetus was publicly burned. Mead, disgusted with the bigotry of the bishop, and fearing the seizure of the original copy, disposed of the volume to a French collector. After passing through several hands it was secured for the governmental library. The first intimation the world had of the existence of the *Christianisimi Restitutio* and of the great discovery made by its author, was in the year 1694, and was found in Wotton's *Reflections of Learning, Ancient and Modern.* Although in the Instituto Anthropologico, in the city of Madrid, a statue has been raised to the memory of Michael Servetus, the discoverer of the circulation of the blood, this honor is not entirely deserved. Servetus, although he discovered the pulmonary circulation, was ignorant of the general or systemic circulation. In this matter patriotism has carried the Spaniards far beyond the bounds of truth. Among the Italians the same honors are claimed for Andrea Caesalpino, whose bust has been set up at Rome. If a marble monument were erected to every man who has contributed his mite to our knowledge of the circulation, there would be not less than a score of statues, and that of William Harvey would tower high above all the others.*

*To those who may believe Calvin innocent of the blood of Servetus, I would say that in the year 1546, seven years prior to the death of Servetus, Calvin wrote a long letter to his friend Farel. In the course of that epistle he said:

"*Servetus* nuper adme scripsit ac literis adjunxit longum volumen suorum deliriorum cum thrasonica jactantia me stupenda et hactenus inaudita visurum. Si mihi placeat huc se venturum recipit. Sed nolo fidem meam interponere; *nam si venerit, modo valeat mea authoritas, vivum exire nunquam patiar.*"

TRANSLATION.

"Servetus has written to me lately, and to his letter had added a large book of his reveries with certain arrogant boastings that I should see in it things until now unheard of, and ravishing. He promises to come here if I agree to it; but I do not wish to pledge my word; for if he come and my authority be considered, I shall not permit him to escape without losing his life."

Grotius had seen this letter in the library of Paris. Ullembogoert had read it. Mosheim proves it is apocryphal.

"Our researches have not been fruitless. The letter is in the library of the king (Bibliotheque du Roi) in the chamber of manuscripts, n. 101–102, of the Dupuy collection. It is entirely in Calvin's hand and very difficult to be read, as is everything written by the reformer. It is dated February, 1546." Audin: History of the Life, Works and Doctrines of John Calvin, Baltimore, no date, pages 456–457.

The Ideal Medical Journal.—An ideal medical journal, in my opinion, should be a journal that is not controlled by a clique, not published in the interest of a medical school, or of a faction; it should be independent, not a partisan publication. Original articles should be published and a fair price paid the author. I doubt the propriety of publishing the proceedings of medical societies, that are published in so many journals; we all grow weary in seeing so much trash. In a city like Baltimore, with so many large medical schools, more attention should be paid to local medical news. An ideal medical journal should be aggressive in upholding State laws, in detecting and pushing to the wall quackery. The editors of a medical journal should be the leaders in reforms; they should be aggressive, not negative, individuals. To the press we all look for advice and guidance.—WILMER BRINTON, M. D., in *Maryland Medical Journal.*

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings both colored and black. In one imperial octavo volume of 1,239 pages, with 772 large and elaborate engravings on wood. Price of edition with illustrations in colors: Cloth, $7.00; leather, $8.00. Price of edition with illustrations in black: Cloth, $6.00; leather, $7.00. Lea Brothers & Co., Publishers, Philadelphia and New York. 1896.

This new edition of Gray, from the thirteenth English edition, is a matchless treatise upon human anatomy. Books come and go, but Gray's anatomy seems destined to remain until the end of time. In this edition sections on the Brain, Teeth, Abdominal Viscera, and Genito-urinary Tract have been re-written, and the parts devoted to Histology and Development have been revised. The splendid series of illustrations has been enriched by one hundred and thirty-five additional engravings. Medical students and practitioners desiring a complete library on anatomy will make no mistake in purchasing Gray.

Hare's Practical Diagnosis. The use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Laureate of the Medical Society of London, of the Royal Academy in Belgium, etc. In one octavo volume of 566 pages, with 191 engravings and 13 full-page colored plates. Cloth, $4.75. Lea Brothers & Co., Philadelphia and New York. 1896.

The experience of the author in both didactic and clinical teaching has shown that the all-important subject of diagnosis can be relieved of much of its difficulty by treating it exclusively from a clinical standpoint, and the object of this volume is to place before the physician and student a guide to this art as it is actually used in practice. To accomplish this the symptoms used in diagnosis are discussed first, and their application to determine the character of the disease follows. Thus, instead of describing locomotor ataxia or myelitis, there will be found in the chapter on the Feet and Legs a discussion of the various forms of and causes of paraplegia, so that a physician who is consulted by a paraplegic patient can in a few moments find the various causes of this condition and the differential diagnosis between each. So, in the chapter on the Tongue, its appearance in disease, both local and remote, is discussed. In other words, this book is written upon a plan quite the reverse of that commonly followed, for in the ordinary treatises on diagnosis the physician is forced to make a suppositious diagnosis, and, having done this, turn to his reference book and read

the article dealing with the disease supposed to be present, when, if the description fails to coincide with the symptoms of his case, he must make another guess and read another article. In this book, however, the discovery of any marked symptoms will lead directly to the diagnosis. Thus, if the patient is vomiting, in the chapter on vomiting will be found its various causes and their diagnostic significance, and the differentiation of each form of this affection from any other.

The two indexes form an especially valuable and practical portion of the work. In the *Index of Diseases* under each heading will be found annotated references to the various symptoms which constitute its clinical picture. Conversely, the *Index of Symptoms, Organs and Terms* furnishes a ready-reference list of the various diseases in which any given symptom may appear as a feature. It would be difficult to conceive of a work of greater utility. In connection with it the same author's *Practical Therapeutics* may be most advantageously consulted for the most approved treatment.

Ptomains, Leucomains, Toxins and Antitoxins; or the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry, and FREDERICK G. NOVY, M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (3d) edition. In one 12mo. volume of 603 pages. Cloth, $3.00. Philadelphia, Lea Brothers & Co. 1896.

It is now generally recognized that those diseases which cause the greatest mortality and consequently are of the greatest importance are in reality cases of poisoning; that pathogenic germs are living poisons and that every infectious disease is actually an intoxication. Not only are there chemical factors in the causation of disease but, furthermore, specific chemical agents are now being employed in its prevention and cure. In the present volume will be found a systematic exposition of etiological, preventive and curative chemistry. The widespread interest in its department, and the acceptance of this volume as the standard authority has led to the demand for three editions. These opportunities have been utilized by the authors to keep it always abreast with the rapidly advancing knowledge in its department. The present edition has not only been thoroughly revised throughout but also greatly enlarged, ample consideration being given to the new subjects of Toxins and Antitoxins, which have assumed great and merited practical importance of recent years.

A Manual of Clinical Diagnosis by Microscopical and Chemical Methods—For Students, Hospital Physicians and Practitioners. By CHARLES E. SIMON, M. D., late assistant resident physician Johns Hopkins Hospital, Baltimore. In one very handsome octavo volume of 504 pages, with 132 engravings and 10 full-page colored plates. Cloth, $3.50. Lea Brothers & Co., Philadelphia and New York. 1896.

The application of chemical and microscopical methods in the determination of disease is authoritatively and clearly explained in this volume. Dr. Simon has had the advantage of acquaintance with the best methods developed in European clinics and laboratories and to this he has added the

experience gained in private practice and in one of the largest and most advanced American hospitals. Readers of this work will find complete and thoroughly practical explanations of the diagnostic indications which can be obtained from the blood, secretions of the mouth, the gastric juice and contents, the feces, the nasal secretion, the sputum, the urine, transudates and exudates, cystic contents, meningeal fluid, semen, vaginal discharges, and the mammary secretion, so plainly set forth that the practitioner or student who has not had special training in such manipulations may nevertheless be enabled to obtain satisfactory results. The work is abundantly illustrated with engravings and full-page plates in colors.

A Text-Book of Histology, Descriptive and Practical. For the use of students. By ARTHUR CLARKSON, M. B., C. M., Edinburgh, formerly Demonstrator of Physiology in the Owen's College, Manchester; Late Demonstrator of Physiology in the Yorkshire College, Leeds. With 174 original colored illustrations, octavo, pp. xx–554. Price, $6.00, net. Philadelphia: W. B. Saunders, 1896.

The Text-Book of Histology, by Dr. Arthur Clarkson, has taken a high rank as a text-book in England, and without doubt will meet with a cordial reception in this country. The volume comprises both the descriptive and practical parts of histology. The first two chapters are devoted to the consideration of the general methods of histology, and subsequently, in each chapter the structure of the tissue or organ is first systematically described. The student is then taken tutorially over the specimens illustrating it, and, finally, an appendix notes the method of preparation. In the practical part only the well-known and well-tried methods have been given. The lithographic plates are superb.

Water and Water Supplies. By JOHN C. THRESH, D. S. C. (London); M. B. (Victoria); D. P. H. (Cambridge), etc. Duodecimo, pp. xvi–438. Price, $2.25 net. London: The Rebman Publishing Co., Ltd., 11 Adam street, Strand, 1896. For sale by W. B. Saunders, Philadelphia.

All civilized communities now recognize that an abundant supply of pure water is a necessity, and one of the chief duties of the sanitary authorities is to provide pure water for the people.

The object of the present book is to place within the reach of all persons interested in public health the information necessary in forming an opinion as to the wholesomeness and abundance of any supply or proposed supply of water.

The value of such a treatise will be recognized by all versed in sanitation.

Transactions of the Medical Society of the State of New York, for the year 1896. Published by the Society. Octavo, pp. viii.-544

By the courtesy of the Secretary, Dr. Frederic C. Curtis, of Albany, we have received a copy of this valuable book. The Medical Society of the State of New York is now ninety years of age and its annual volumes of transactions represent a mine containing some of the best products of American medical minds. All of the papers in the present volume are good. Perhaps the most noteworthy contribution is that of Dr. Gaylord P. Clark of Syracuse upon "The Equilibrium Function of the Ear."

An American Text-Book of Physiology. By HENRY P. BOWDITCH, JOHN G. CURTIS, HENRY H. DONALDSON, W. H. HOWELL, FREDERIC S. LEE, WARREN P. LOMBARD, GRAHAM LUSK, W. T. PORTER, EDWARD T. REICHERT, and HENRY SEWALL. Edited by WILLIAM H. HOWELL, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University. Fully illustrated. Price, in cloth, $6.00; in sheep or one-half morocco, $7.00. For sale by subscription only. Royal octavo, pp. 1,052.

The collaboration of several teachers upon a text-book of physiology is unusual. This is probably the first text-book of physiology written upon the syndicate plan. Perhaps the greatest advantage which the student will gain by this method will be the point of view of different teachers. In a measure he reaps the same benefit that would accrue if he were to follow the instruction of several teachers of the subject.

The diversity in the method of treatment, which might seem at first sight to be disadvantageous, will probably prove one of the strong points of the volume. More than one-fourth of the book has been written by Dr. Howell, comprising the introduction, general physiology of muscle and nerve, secretion, chemistry of digestion and nutrition, movements of the alimentary canal, bladder and ureter, and blood and lymph. Under the head of circulation the mechanics of the circulation and the movement of the lymph is considered by Dr. Curtis, while the innervation of the heart, its nutrition, and the innervation of the blood-vessels are described by Dr. Porter. Dr. Edward T. Reichert has written the chapters on respiration and animal heat. The central nervous system was allotted to Dr. Henry H. Donaldson. Of the special senses, vision is described by Dr. Henry P. Bowditch and the remaining special senses by Dr. Henry Sewall, who has also written on voice and speech. The action of locomotor mechanisms has been described by Dr. Warren P. Lombard; reproduction by Dr. Frederic S. Lee; and the chemistry of the animal body by Dr. Graham Lusk. These names are sufficient guarantee of the excellence of this text-book.

Unique Bill.—A lady physician of this city recently sewed up a torn lip for a male bicyclist. When the patient recovered he asked for an itemized bill and this is what he got:

M———to————M. D., Dr.

To professional services to date (Aug. 20) as follows:

To sewing lip (warranted not to rip)	$2.00
To removing stitches	2.00
To one night visit	3.00
To one shave	.15
To five hours and thirty-five minutes as companion to invalid gentleman	2.85
	$10.00

Prospering.—We are glad to note that the St. Louis branch of the W. T. Keener Co., of Chicago, dealers in medical books, is doing a good business.

MEDICAL PROGRESS.

Serum-Diagnosis of Typhoid Fever.—The Paris correspondent of the *Peoria Medical Record* writes as follows, under date of July 28, 1896:

A review of medical Paris from June 26, 1896, to the present date must include, above all, the discovery of the serum-diagnosis of typhoid fever, by Dr. F. Widal.

During the session of the Société Médicale des Hopitaux, held June 26, 1896, he published this discovery. By this method one is enabled to diagnosticate unerringly whether in a given case we are dealing with typhoid fever. The discovery has received the approval of both Professors Dieulafoy and Rendu. The former has reported thus to the Academie de Médicine, in session July 6, 1896, and the latter to the Société Médicale des Hopitaux, in session July 3, 1896.

The discovery is this: Blood-serum taken from a typhoid fever patient will produce a specific reaction, visible both macroscopically and microscopically, in a bouillon culture of Eberth's bacilli. The reaction consists in a formation of a white dust-like precipitate which is suspended in the entire depth of the bouillon culture. A microscopical examination of this precipitate shows it to be an agglutination of the bacilli. Other tests made with the serum obtained from healthy persons or patients suffering with some other disease than typhoid fever failed to give this reaction.

Dr. Widal proceeds as follows: The skin of the elbow is cleansed and made aseptic. The needle of an aseptic syringe is introduced into one of the veins of this region and blood is drawn into the syringe. The blood is allowed to coagulate and then the serum is decanted. Eight drops of this serum are added to one drachm of bouillon culture of Eberth's bacilli, which is contained in a test-tube. Now this mixture is placed in a hot-air chamber, the temperature of which is kept at 37° C. Twenty-four hours later, providing the serum was taken from a typhoid fever patient, the reaction is visible.

If one considers how often there is a doubt as concerns the diagnosis of typhoid fever, the value of this discovery is apparent. Furthermore, this test enables one to classify correctly the hybrid diseases, such as typhoid-malaria, typhoid-pneumonia, etc.

Dr. Achard reported his experiences with Dr. Widal's method during the session of the Société Médicale des Hopitaux, July 24, 1896. He had tried it in six cases, three of which gave negative results and three positive results. The six cases later on were proven to be three cases of typhoid fever and the serums of these gave the positive results, whereas the other cases were not typhoid.

Dr. Widal reported that up to the present he himself had examined fourteen cases of typhoid and in every one of them he had succeeded in obtaining the reaction. Besides, he has examined eleven cases of fevers with gastric disturbances and in every one of these cases the reaction failed. The conclusion drawn was sustained by the clinical course of the diseases under consideration.

It is as yet not definitely settled at what time of the disease the method is applicable. As a rule the reaction can be obtained after the seventh or eighth day. The reaction, however, has been obtained as soon as the fifth day.

Dr. Widal now employs the following method for extemporaneous examination. To ten drops of a culture of Eberth's bacilli, one or two days old, one drop of the suspected serum, obtained in the manner already described, is added. Of this mixture one drop is examined microscopically and compared with a specimen of the culture before the serum was added.

Drs. Siredey, Lemoine and Menetrier related similar experiences approving the method advised by Dr. Widal.

Antitoxin in the Kaiser and Kaiserin Friedrich Children's Hospital in Berlin.—Dr. Adolph Baginsky, Extraordinary Professor of the Diseases of Children in the University of Berlin, has this to say in the *Medical Record*, August 8, 1896:

Now, as regards my own experience and my views concerning the antitoxin treatment of diphtheria in the Kaiser and Kaiserin Friedrich Children's Hospital, I can only endorse every word that I have said or written in its favor, and will stand by it.

I regard it as useless always to go back to statistics and repeat them, for, by putting together a lot of figures, one will never be able to convince people. In statistics there are so many things to consider, so many to discard, and so many facts to analyze that one cannot only prove every absurdity, but can often succeed in disproving facts.

I consider it of prime importance to classify each and every case according to (1) its primary or earliest clinical manifestations; (2) its course, and (3) its termination. Under these conditions I am in a position to announce some new facts:

1st. Our cases are to-day just as severe as they have ever been on admission to our hospital. It is absolutely untrue that since the introduction of the serum treatment we have been dealing with milder forms of diphtheria. On the contrary, we have had the worst forms and most malignant cases during all this time as well as during the last few months. It is, therefore, wrong to speak of mild epidemics, for even in my private consultation practice I have met the worst forms of diphtheria.

2d. In spite of the malignant type of our cases we find that the course of treatment since the introduction of the so-called healing serum is so much more favorable that a comparison with former methods is uncalled for. We can easily compare results of the former clinical methods by noting the percentage of mortality. As an example allow me to offer the following statistics of the first half of the present year:

1896.	January,	number discharged cured,	27;	died,	2=	6.89%
	February,	" "	25;	"	4=	16%
	March,	" "	25;	"	3=	10.71%
	April,	" "	25;	"	0=	0%
	May,	" "	25;	"	3=	10.71%
	June,	" "	20;	"	1=	5%

This is the percentage of mortality which we can place opposite former percentages of forty to fifty per cent. But this would be hardly enough if we did not consider the course taken by convalescing cases and the remedy used in the treatment.

3d. When the antitoxin treatment was first introduced opposition was thought to be justified by the fact that with the greater number of admitted cases more mild cases were admitted to the hospital, and so it was asserted that a large number of milder cases were treated to swell the favorable statistics. To disprove that I can show that, although the number of cases admitted has been considerably lessened and the cases taken were always of the severest kind, the mortality has diminished and the percentage of discharged cured has considerably increased.

4th. I have as yet never noticed, after an injection of antitoxin, whether the remedy was employed as a curative agent or was used in prophylactic doses to confer immunity (excepting in two cases which I shall report in detail later), any symptoms which were detrimental to the health of the patient. In the large amount of carefully studied material I have looked at every factor and watched for harmful results, and cannot find a single fact which would tend to destroy my confidence in the absolute value of this antitoxin as a healing agent in diphtheria. I therefore cannot understand the reports of other observers about the poor results and effects of the serum. Surely it is not possible, in comparison with the great value of antitoxin observed in such a large number of cases of diphtheria in our hospital, to diminish this value by a few reports of unsuccessful or doubtful cases occurring elsewhere.

5th. It is highly important that in the treatment of diphtheria with antitoxin the physician should first ascertain the quality of the antitoxin used and not take the first substance he finds labeled in the market. For it is a well-known fact that some alleged antitoxins are absolutely inert. It is therefore advisable to use, as we are in the habit of using, antitoxin the preparation of which is under the control of the German Government. We use in our hospital two kinds of antitoxin: (1st) Aronson's, and (2d) Behring's.

6th. It is also necessary to remember that diphtheria is a disease attended by many grave complications and that antitoxin is not our sole reliance in such emergencies. To be markedly successful in this disease the physician must be a pathologist and a therapeutist and be thoroughly in touch with all the special indications that may arise during its course. If he does not properly understand the leading principles of treatment the best remedy we have will be a failure with him. The results to which I refer have been achieved not only in the hospital but also in private practice.

The American Microscopical Society held its nineteenth annual meeting in the new Carnegie Library Building, Pittsburg, Pa., Tuesday, Wednesday, Thursday and Friday, August 18, 19, 20 and 21, 1896. A hearty welcome was extended to all interested in the microscopical sciences. Applications for membership and titles of papers to be read at the next meeting should be addressed to A. Clifford Mercer, M. D., President, Syracuse, N. Y., or to Wm. C. Krauss, M. D., Secretary, 382 Virginia street, Buffalo, N. Y.—*Cincinnati Lancet-Clinic.*

FORMULAE.

Epitheliomata of slight extent often give way to such mild means as the following solution frequently applied:

℞ Resorcin ..... 2 gm.
Potass. chlorat ..... 10 gm.
Aq. dest ..... 300 gm.
—BROCQ.

Burns of the Second Degree.—

℞ Carbonate of lime ..... 10 gm.
Oxide of zinc ..... 5 gm.
Starch,
Linseed oil,
Lime water ..... aa 10 gm.
Ichthyol ..... 1-3 gm.
M. —LEISTIKOW.

Chronic Hæmorrhoids:

Simple diet and open-air exercise—avoid constipation, riding and bicycling. Bathe anal region well with cold water after each action of the bowels. Take for a short period, at intervals, with lunch and dinner, two pills, each containing one grain of extract witch hazel, four grains of extract capsicum, and honey sufficient to make a mass.—*The Practitioner* (London).

A Laxative Powder for Constipation in Children:

℞ Bicarbonate of sodium ..... 3 drachms.
Powdered rhubarb ..... 2 ounces.
Sulphate of sodium ..... 1 ounce.
Oil of peppermint ..... 20 drops.

Half to one teaspoonful of this powder may be given in the morning before breakfast. —*Journal de Medicine de Paris.*

Painless Extraction of Teeth.—D. Frohmann (*Med. Week*, 1896, IV., p. 312) recommends the following solution:

Cocaine hydrochlorate ..... 0.1—0.2 gme.
Morphine hydrochlorate ..... 0.0 25 gme.
Sterilized sodium chloride ..... 0.2 gme.
Antipyrine ..... 1—2 gme.
Guaiacol ..... 2 drops.
Distilled water ..... 100 gme.
For external use.

A few drops of this solution are injected into the gum at various points around the teeth to be extracted and at a certain distance therefrom, until it appears pale, when the tooth may be extracted without pain.

The object of adding morphine and antipyrine is to prevent the pain that frequently supervenes when a tooth has been extracted under cocaine anesthesia as soon as the analgesic effect of this alkaloid has passed off.—*Am. M. S. Bulletin.*

The Sweating of Phthisis.—In the *Presse Médicale* for August 22d we find the following formula for the sweating of phthisical patients:

℞ Sodium tellurate ..... from 1.5 to 3 grains.
Alcohol ..... 750 grains.
M.

The dose is a teaspoonful every night and morning, in a little sweetened water.—*Ibid.*

Hypodermatic Treatment of Tuberculosis.—V. Gilbert (*Med. Week*, 1896, IV., p. 323) recommends the following formula:

Beechwood creosote	25 gme.
Camphor	15 gme.
Aristol	10 gme.
Eucalyptol	30 gme.
Sterilized Neat's-foot oil	To make 250 c.c.

For hypodermatic injection.

One c.c (16 min.) of this solution contains 0.1 gme. (1½ grn.) of creosote.—*Ibid.*

Valerianate of Creosote.—Dr. E. Grawitz (*Therapeutische Monatshefte*, July, 1896; *Wiener Klinishe Rundsehau*, August 23, 1896) has found this new preparation, which is a valerianic-acid ester of creosote, advantageous for the following reasons: (1) Being ordorless and tasteless, it is readily taken; (2) Administered even in large doses, it seldom gives rise to digestive disturbances; (3) It is comparatively cheap. It comes in the form of gelatine capsules each containing about three grains. One capsule a day is enough to begin with, but the number may be increased until from six to nine are taken daily.—*New York Medical Journal.*

Erysipelas of the Face.—The *Presse Médicale* for August 22d recommends the following formula:

℞ Carbolic acid, Tincture of iodine, Alcohol,	each	30 grains.
Oil of turpentine		60 grains.
Glycerine		90 grains.

M.

The lesions are to be painted with this liniment every two hours, and covered with aseptic tarlatan.—*Ibid.*

A Liniment for the Throat in Pharyngitis Sicca.—In the *Gazette Hebdomadaire de Médecine et de Chirurgie* for August 20th we find the following formula:

℞ Glycerine	450 grains.
Carbolic acid	4 grains.
Tincture of aloes	8 grains.
Tincture of iodine	4.5 grains.
Wine of opium	10 drops.

M. —*Ibid.*

Antidiphtheritic Serum in the Treatment of Malignant Scarlatina.—At a recent meeting of the Congrès Français de Médecine, a report of which appears in the *Gazette Hebdomadaire de Médecine et de Chirurgie* for August 27th, M. Fourrier stated that he had had occasion to use this serum in the case of a young child who showed an angina during the course of grave scarlet fever. The case was almost hopeless at the moment the treatment was begun, but from the first injection the coma into which the child had sunk disappeared and the subsequent injections led to a rapid recovery. Since them M. Fourrier has employed this treatment in five similar cases, with the most successful results, and he recommends it in all grave cases of scarlatina.—*Ibid.*

THE PUBLISHER'S DESK.

Pilocarpine, as it occurs commercially, often contains jaborin and other allied alkaloids and impurities; jaborin acts like atropin, hindering secretion, and its presence therefore disturbs the therapeutic effect of pilocarpine. The most reliable test for purity is the melting point. The United States Pharmacopœia gives 197° C. (386.6° F.) as melting point; comparative tests recently made in the experimental laboratory of C. F. Boehringer & Soehne showed that Boehringer's Pilocarpine muriate melts at 15° C. above any of the other brands in the market. The best of the competing products were re-crystallized, and the resulting crystals then closely approximated the "Boehringer" standard, proving that impurities originally present had been eliminated by the careful re-crystallization.

As Pilocarpine hydrochlorate is now more popular than ever before in medical practice, and in view of the delicate uses to which it is put—internal or local, with possibility of toxic effects—physicians and pharmacists should exercise special care to prescribe and dispense only an absolutely pure product. And the melting point test seems to be the easiest applied and most reliable; the product should not melt below 197° C.

INDIGESTION–ERUCTATIONS–DYSPNŒA.

Dr. Alfred E. Meyer says he has been using "Maltine with Wine of Pepsin" at the New York Polyclinic, and also at the West Side German Dispensary in his Gynæcological Clinic with signal advantage with women who are suffering from chronic indigestion, and he also gave it a trial in his private practice. One patient, a lady who had for years had frequent attacks of indigestion, received so much benefit from its use that he decided to report the case.

The attacks usually came on about an hour after eating, the symptoms being great distention of the abdomen and a feeling of soreness and dyspnœa. The attack usually lasted from one to two hours. She had been put on various methods of treatment, not only on different preparations of pepsin and pancreatin, but also on dietetic treatment, without any marked or permanent benefit. After beginning the use of "Maltine with Wine of Pepsin"—a small wineglassful after each meal—she did not have another attack. The remedy was continued and there appears to have been an entire mitigation of the disagreeable condition under which she had labored for so long, and this, too, without any special reference as to change of diet. It was noticed that in taking a dose at the beginning of the treatment there were repeated eructations of gas and the uncomfortable symptoms were relieved in a very short time.

Dr. Meyer says he thinks that the combination of "Maltine with Wine of Pepsin" is a very happy one.

THE TRI-STATE MEDICAL JOURNAL

Ye Ancient Pharmacist, A. D. 1536.

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CLINICAL LECTURES.

I.—LECTURES ON ABERRATIONS OF THE SEXUAL FUNCTION,

By G. Frank Lydston, M. D., of Chicago,

Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Attending General Surgeon to the Militant Hospital; Lecturer on Criminal Anthropology in the Kent College of Law.

[CONCLUDED FROM SEPTEMBER ISSUE.]

The old maxim that "idleness is the mother of mischief" is especially applicable to those who are sexually depraved, which naturally leads to the corollary that proper mental and physical training and exercise are a patent antidote to sexuality of both thought and action. The individual who exercises mind and body to the extent of reasonable fatigue has little desire for sexual indulgence. I know of no better anaphrodisiac than an hour in the gymnasium, followed by a cold shower and a vigorous rub. *The lad who takes pride in his physique and is attracted to athletic sports is seldom addicted to masturbation as compared with his fellows.* The practice of athletics necessitates sexual abstinence or moderation, and this is well known to trainers; indeed, every athlete knows that after a few weeks' training the desire for sexual indulgence is in a measure lost.

Physical exercise in addition to diverting the superfluous nervous energy from the sexual organs is also beneficial by lessening the activity of the secretion of semen, and inasmuch as distension of the tubuli seminiferi and seminal vesicles by semen acts reflexly in producing sexual desire, anything which will inhibit the secretion will necessarily prove beneficial. Muscular exercise which involes a certain amount of attention and mental application, such as boxing, fencing, cricket, hand-ball, etc., are particularly beneficial, as they tend to divert the mind from sexual matters. The effect of the mind upon secretion is well illustrated not only by the effect of mental emotion upon the sexual organs, but upon the lacteal, gastric, and salivary secretions. It is possible for an individual to indulge immoderately in physical exercise and yet have the mind constantly occupied by sexual affairs. Exercises, such as those just mentioned, are therefore more apt to secure the desired result than are those which merely involve physical labor.

The idea prevails among a large number of young men that it is absolutely necessary for the sexual organs to be exercised in some manner to keep them in a healthy condition. This pernicious notion is in itself occasionally a cause of masturbation and incontinence. It is therefore necessary to impress upon the minds of such individuals the fact that a man may be practically healthy and comfortable with the function of the sexual organs held in abeyance for an indefinite period of time, providing, however, the mind be kept free from sexuality. Physical continence is only attended by distress when the mind is allowed to run riot in sexual matters.*

The social habits of the young require close supervision. Evil associates are easily found in any community, however respectable. It is not unusual to observe a cluster of boys admiringly listening to the lewd tales of some stable boy or man of all work, and the instruction in vice received at the hands of his elders is most pernicious in its effects upon a lad whose highest ambition is to be mannish—and who is apt to confound the depravity of his teacher with manliness.

Late hours, the dance, liquor, tobacco, high living, the society of females of questionable virtue and free manners foster sexual excitability and must be avoided. Suggestive and immoral plays have much to do with the vitiated sexual tone of our social system and should be interdicted.

* With regard to the benefits of continence in youth, Mr. Acton speaks as follows: "The argument in favor of the great mental, moral and physical advantage of early continence does not want for high secular authority and countenance, as the recollection of the least learned reader will suggest in a moment. Let us be content here with the wise Greek, who, to the question when men should love, answered: 'A young man, not yet; an old man, not at all;' and with the still wiser Englishman, who thus writes: 'You may observe that amongst all the great and worthy persons (whereof the memory remaineth, either ancient or recent) there is not one that hath been transported to the mad degree of love—which shows that great spirits and great business do keep out this weak passion. * * * By how much the more ought men to beware of this passion, which loseth not only other things, but itself. As for the other losses, the poet's relation doth well figure them: *That he that preferred Helena quitted the gifts of Juno and Pallas;* for whosoever esteemeth too much of amorous affection, quitteth both riches and wisdom. * * * They do best, who, if they cannot but admit love, yet make it keep quarter.' "

When the general health is impaired tonic treatment should be instituted. It is often the case that the morale of the patient does not appreciably improve until his general physical condition has changed for the better.

The importance of careful attention to dietetic regimen in controlling the tendency to masturbation and sexual excesses can scarcely be overrated. The relation of a stimulating and highly nutritious diet to sexual desire and capacity was well understood by the ancients. The old maxim—"*Sine Baccho et Cerere friget Venus*"—is as pertinent as it is classical. In the lives of many individuals Bacchus and Venus go hand in hand as dominating powers. With some persons excessive sexual desire is directly dependent upon high living. Gouty conditions of the blood incidental to the latter are especially apt to be associated with irritation of the genito-urinary tract, and particularly of the nerves of sexual sensibility. If one would remain continent he must not only remove all mental sources of sexual excitement, but he must also avoid stimulants, tobacco, highly seasoned food—in short, all articles of diet which tend to induce nervous irritability. It is probable that a strictly vegetarian regimen is the best that can be advised for an individual who desires to remain continent both in mind and body. With our present pernicious social customs the efforts of the will unaided are not apt to be successful in conquering the lusts of the flesh.

When local diseases exist, whether the subject be male or female, their cure is essential, for as long as there exists any source of sexual irritation, moral persuasion will be of little avail. Circumcision is a valuable measure, as it relieves existing phimosis, and by uncovering the glans finally results in a loss of sensibility of that structure to a certain degree and makes the act of masturbation less attractive. In extreme cases in the female amputation of the clitoris has been known to cure; this, however, is an operation to be very cautiously advised. Baker Brown, of London, the originator of the operation, performed it for all sorts of nervous troubles and received severe censure for his pains; indeed he was well-nigh ostracised by his professional brethren—with more sentiment than justice upon their part.

The bromides, gelsemium, camphor, hyoscyamus and other drugs of the anaphrodisiac class are useful in some cases. They will serve to lessen sexual desire and thus prove beneficial where the patient really wishes to break off the habit. The passage of the cold steel sound has often an excellent tonic as well as moral effect.

Children who are mentally defective should be carefully watched, for once the habit is commenced a cure is almost impossible. The masturbatory lunatic is rarely cured of his masturbation. The penis has been blistered from glans to root, in such cases, without interfering with the habit. The straight-jacket might perhaps be of service temporarily, but as soon as liberated the poor unfortunate invariable begins his vicious practices again. We should, however, always do the best we can with this class.

The prognosis in the cases of the majority of the victims of masturbation is good, but occasionally all means fail and the patient becomes a mental and physical wreck. The average boy and girl discover the perniciousness of the practice before arriving at adult age and stop it, with little apparent physical disturbance resulting from the habit later on.

Marriage as a remedy for masturbation is not to be thought of unless the subject is perfectly sound, mentally and physically—or at least practically so, and of suitable age. Under any circumstances the physician should give the matter most serious consideration before assuming the responsibility of advising matrimony. There is a wider latitude in the case of women than men in this respect, as a woman is seldom impotent.

In a general way the vice of sexual excess requires the same management as masturbation. Fortunately the patients who indulge in venery to excess are older and possessed of more powerful wills than the subjects of masturbation and are more easily influenced by argument.

II.—ABDOMINAL PAIN,*

By F. BYRON ROBINSON, M.D., of Chicago,

Professor of Gynæcology in the Post Graduate School.

THOSE of us who devote our whole time to diseases of women and abdominal surgery are likely to have some experiences that may be of interest to the busy general practitioner. You have noticed that in the past hour we have examined and treated women who have given all kinds of complaints of *pain* in the *abdomen*. You have noticed that they have complained of *pain* from thoracic diaphragm to pelvic diaphragm, *i. e.*, they have described *pain* in every portion of the belly cavity. I wish to talk for a short time on the significance of *pain* in the *abdomen*. It should be remembered that we can only have pain where there are nerves. Nerves alone originate and carry pain, so that to understand abdominal pain we must know the anatomy of the abdominal nerves. In general it may be said that each organ has its own plexus of nerves which converges toward the abdominal brain (solar plexus). The abdominal brain is situated around the cœliac axis, just behind the stomach. It lies about four inches above the umbilicus. Much abdominal pain is referred to these ganglia.

Again, there courses along the vertebral column on each side a series of ganglia from one diaphragm to the other, known as the lateral chain of sympathetic nerves. Into this chain and its ganglia converge many nerves of the pelvic organs, *e. g.*, the uterus, tubes and ovaries and especially

* A Clinical Lecture delivered before the Class of the Post Graduate Medical School.

the kidneys and ureters. That is, the nerves from these organs run directly into the lateral chain of ganglia.

Finally, the spinal cord sends some nerves directly into the pelvic organs by way of the third and fourth sacral nerves. These nerves go chiefly to the uterus (neck) and rectum.

Thus we have the three great plans of nerves in the abdominal cavity. It may be remembered that the abdominal cavity is supplied by two sets of splanchnics, viz., abdominal splanchnics and pelvic splanchnics. The abdominal splanchnics enter the abdomen through the upper diaphragm and form the abdominal brain. They are pink-white medullated nerves and when they pass into the abdominal brain they lose their medulla—then they are pure sympathetic nerves. The business of ganglia is to demedullate nerves. Now, the pelvic splanchnics enter by way of the third and fourth sacral nerves and pass right to the hypogastric plexus and lose their medulla in its ganglia.

With this plan of the abdominal nerves before us, we now can begin to interpret abdominal pain. The key to abdominal pain is the structural and functional arrangement of the nerves. Let us begin by interpreting the pain of one of those women: She complains of pain in the (*a*) pelvis, (*b*) in the back, (*c*) in the stomach. Pelvic examination reveals her whole genital tract inflamed. She has a large uterus (endometritis and metritis) and salpingitis with considerable peritonitis surrounding the tubes.

Now, *first*, her pelvic pain is due to: (*a*) inflammation of the periphery of the hypogastric plexus which ends in the inflamed pelvic organs, *i. e.*, the large uterus and tubes and exudates and endometrium; (*b*) the pelvic pain is also due to the excessive pressure on the periphery of the hypogastric plexus by the enlarged organs, *i. e.*, the large and hard uterus, tubes and exudates. Also the pelvic pain is due to the inflamed endometrium irritating the ends of the nerves of the uterus. The irritation, you will notice, is so severe as to produce a yellow leucorrhœa.

Second, her backache is due to the dragging and irritation of that part of the hypogastric plexus which ends in the lumbar sympathetic chain. I have tried this many times on female cadavers. If one will dissect out the lateral chain of sympathetic and also the hypogastric plexus and then seize the uterine end of the hypogastric and pull it down, he will at once see that the lumbar part of the lateral chain is put on tension first, *i. e.*, the first irritation by dragging on the hypogastric plexus takes place in the lower lumbar part of the lateral chain of sympathetics. I never saw this fail in cadavers, either fœtal or adult. So that the real anatomical arrangement of the nerves accounts for *pain in the back* in cases of diseased, dragging pelvic organs.

The reason, then, for *pain* in the lower spine in diseased female genitals is anatomatically and physiologically evident.

Thirdly, she complains of pain in the stomach. This is known as a *referred* pain. It is very common in women with diseased pelvic organs to have pain in the stomach. The *very* young interne and the *very* general practitioner sends her to the stomach doctor, who attacks the stomach with a Spartan vigor. He drugs and he floods the poor stomach for the guilty uterus and "knows not what he does." The pain in the stomach from diseased pelvic organs is reflex. The irritation passes up the hypogastric plexus to the abdominal brain, where it is reorganized and emitted to the stomach over the gastric plexus. It profoundly affects the stomach and impresses the woman that she is only sick in the stomach. But remember the gastric plexus reaches the stomach over the gastric artery, the splenic artery (vasa brevia) and the hepatic (pyloric) artery, so that its nerve supply is very large. (The sympathetic nerves pass to the viscera on or along blood-vessels.) The vomiting of pregnancy is a similar nervous process. The irritation from the uterus, bladder, etc., etc., is carried up the hypogastric plexus to the abdominal brain, where it is reorganized and emitted to the stomach over the gastric plexus.

But, you say: Is the rest of the digestive tract also affected? Yes; just as profoundly, but it is not so manifest. In fact it is likely that the small intestine is much more affected than the stomach, for the superior mesenteric plexus is the largest of all the plexuses supplying the digestive tract. The disturbance in the small intestine is among the invisible ones of digestion and secretion. Time shows in this woman that non-assimilation has played havoc with her health.

It seems to me that this is the only reasonable explanation so far given of pelvic pain, of backache and of stomach pain in diseased genitals. But this woman complains that she must get up in the night to urinate. She says she has pain in the bladder as well as the back. In this case the urine is high-colored, scanty and contains mucus and abnormal quantities of salts. Is her bladder or kidney at fault for the *pain?* The answer is that the kidney is first at fault and the bladder is secondly at fault. But the bladder is only at fault because of the kidney. The bladder is scarcely ever primarily diseased. It is only a membranous sac, a convenient reservoir, but when its surface is continually irritated by abnormal urine it soon becomes irritable if not *diseased*. The frequent micturition is owing to disease in another organ. So we must look for the pain in the back as in some manner connected with the kidney as well as the uterus. For it should always be remembered that the kidney and uterus are physiologically and anatomically connected. They both move out of the same organ, viz., the Wolffian body. As the kidney and ovary and tube and uterus all grow out of the same original body (the Wolffian) the nerve

supply is especially intimate and closely connected with urinary organs and genital organs. This anatomical and physiological fact explains much of the *pain* in the back and variation in urine of menstruating girls.

The nervous connection of kidney and genitals can be very plainly seen as large nerve strands if one will dissect a 6-month's-old baby after it has lain in pure alcohol for a couple of months. Now how does this kidney *pain* and disease come about? It arises from the irritation of the pelvic organs. It is reflex. It is not originally infective, passing up the ureters from the bladder by way of the ureters. It may be secondarily infective. The irritation from uterus, tubes or ovary passes up the hypogastric plexus to the abdominal brain, where it is reorganized and emitted over the renal plexus.

Now, the nerve supply to the kidney (which is all sympathetic) is the largest of any organ except the uterus, at least so far as my dissections would indicate. Hence, since nerve forces travel in the direction of least resistance the irritation will easily pass to the kidney. The plexus is short and the route is direct. The nerve strands are large and very numerous. The effect of this reflex irritation on the kidney is three-fold: (1) the secretion may be excessive, (2) it may be deficient and (3) the secretion may be disproportionate. But what has the variation in the kidney secretion to do with abdominal *pain?* Why, it has very much to do with pain. The irritation may go on a long time before the woman knows she has any trouble. She experiences no direct pain, but that is simply *unconscious pain.* It is pain just the same and just as effective on the bodily health.

The worst effect on the kidney and bladder is from disproportionate renal secretion. Disproportionate secretion is vitiated secretion which will irritate the mucous membrane in the pelvis of the kidney, the whole ureter and the lowest part of the bladder, especially the trigone of the bladder, where the chief nerves are aggregated.

The *kind of pain* in the abdomen is generally of dull, blunt or heavy character. It is not generally sharp. It belongs to the kind of pain which arises in sympathetic nerves, *i. e.*, non-medullated nerves give a dull pain. Medullated nerves give rise to a sharp, acute pain. In female pelvic disease I daily hear of the dull aching pain. In those cases of dull aching pain an examination will frequently reveal a pyosalphinx, an ovarian abscess or a large subinvoluted uterus dragging on nerves. But it is dull pain. Now it is frequent that this idea can be applied in practice. Take, *e. g.*, cases of sudden abortion, when the cervix, unprepared for dilatation, as in labor, is suddenly opened, and note the agonizing *sharp* pains the woman suffers. The reason is that the cervix is highly supplied with spinal or medullated nerves from the third and fourth sacral spinal. Intercostal (spinal) neuralgia, with its sharp, acute flashes, is quite different from the dull, aching colicky pains of the intestines, which are supplied by the

sympathetic nerves. I frequently see women carrying one or more abscesses in the Fallopian tubes with only the dull pain; while if that same abscess were surrounded by medullated nerves, the pain would be unbearable until the abscess was evacuated.

Now, when a tubal abscess so approaches the abdominal wall that its inflammatory process involves the intercostal (spinal) nerves then the dull, aching pain (sympathetic) at once acquires the additional sharp, cutting pain of spinal nerves. So that the manifest difference existing between the pain produced by spinal and sympathetic nerves aids in diagnosis. Sympathetic nerves supply all the tubal viscera, hence the colic of the ureters, uterus, digestive tract and gall-duct are of the sympathetic, *i. e.*, of a dull, aching and slow character. But at the mouths of some organs spinal nerves dominate and will then change the character of the pain to a sharp, acute kind, *e. g.*, the anus (supplied by the pudic) and the cervix (supplied by the third and fourth spinal sacral).

In fissure in the anus, where the terminal pudic filaments (spinal) are lacerated, the pain is often terrible, while just above where the rectum is supplied by spinal nerves one can thrust a tube through the rectal wall without pain to the patient, *i. e.*, the sympathetic nerves bear trauma without much pain. The same kind of violent pain in the cervix during sudden abortion is due to trauma of the sacral spinal nerves coming from the third and fourth.

[TO BE CONCLUDED IN NOVEMBER ISSUE.]

The Ohio Law Goes Into Effect.—The crusade against violators of the medical laws in Ohio has begun, and it is likely there will be some lively developments and some interesting cases to deal with. It is understood that certain Columbus druggists are in trouble for prescribing contrary to law.—*American Medical Society Bulletin.*

The Prevention of Baldness.—A common cause of alopecia, according to Dr. Henri Fournier, is that the scalp is washed too often, and is thus lacking in oil. Many races oil the hair, and these are seldom bald. Some animals also, as for example, birds, which possess neither seborrhœal nor sebaceous glands, have a gland which secretes an oily substance which the animal rubs on the skin to protect the feathers from the action of water. The product of sebaceous glands is remarkably rich in fat, and possesses a notably small amount of water. The falling of a certain number of hairs is a physiological phenomenon. The author is of opinion, however, that the application of oil to the scalp would be beneficial to most persons, and it is suggested that the rubbing into the scalp of a pomade or other fatty substances should be made a part of the daily toilet, the pomade to carry with it some antiseptic substance.—*Practitioner (London).*

ORIGINAL ARTICLES.

STOMACH DIGESTION,*

By FRANK H. MURDOCH, M. D., of Pittsburgh, Pa.

PHYSIOLOGISTS divide digestion into six stages: Prehension, mastication, insalivation, stomach and intestinal digestion, and defecation. This evening we have to do with digestion as it occurs in the stomach, which, as we know, is one of the most important, and, at the same time, one of the most abused organs in the human body. This habit of abusing the stomach seems to have been practiced at a very early stage in the world's history, for the ancient Egyptians taught that "the greater part of the aliment taken is superfluous, which superfluity is the cause of all our distempers"; and Hippocrates taught that "excess in drinking is not quite as bad as excess in eating."

The capacity of the human stomach is from eight to fifty-six ounces. When it holds more than fifty-seven ounces, Ewald considers it to be in a condition of dilatation. During rest the stomach should be empty or contain at most only a small quantity of clear mucus.

During digestion it becomes a closed sac. Its contents are subjected to a sort of churning motion from contraction of its walls, and, at the same time, a free secretion of gastric juice takes place from the gastric glands.

As soon as any portion of the contents become properly prepared, the pyloric orifice opens to allow its passage into the intestine. This is repeated at intervals until, in the course of a few hours, the stomach becomes empty, and then the peristaltic action ceases, as does also the secretion of gastric juice, until food is again taken into it.

Gastric juice is a clear colorless fluid of a specific gravity of from 1002 to 1003 and, besides hydrochloric acid, contains two ferments, rennet and pepsin. The amount secreted in twenty-four hours is about seven liters, or nearly one-tenth of the body weight.

The glands which secrete the gastric juice open upon the mucous membrane of the stomach and are of two classes, the cardiac and the pyloric.

The cardiac glands are tubular and several open upon the surface by one duct. They are lined by two kinds of cells: One, forming the greater number, is the chief central or adelomorphous cell for the secretion of pepsin and rennet. The other larger, but also granular and nucleated, is the parietal, dilomorphous, or oxyntic cell for the secretion of hydrochloric acid. The pyloric glands are without the parietal cells, and consequently do not secrete hydrochloric acid, but pepsin and rennet only.

*Read before the Alleghany County Medical Society, August 18, 1896.

The epithelial lining of the mucous coat of the stomach is formed partly by columnar cells and partly by goblet cells for the secretion of mucus.

Pepsin and rennet are not secreted by the gastric glands as such, but exist in a preliminary stage, the one as a proenzyme or rennet zymogen; the other as pepsinogen, both requiring the presence of an acid, especially hydrochloric acid, to convert then into active ferments. Rennet precipitates the casein of the milk, and with it the fat, leaving a liquid part which contains the salts and lactose. As the gastric filtrate, although neutral in reaction, may contain both rennet zymogen and pepsinogen, it should be acidulated with hydrochloric acid before making the test for either rennet or pepsin.

Rennet, like pepsin, is a constant constituent of the gastric juice, and its absence indicates atrophy of the gastric mucosa, although Einhorn has reported two cases where, for a long time, there was entire absence of gastric juice, but where eventually it reappeared in almost normal quantity.

Pepsin, in the presence of an acid, has the power of transforming albumen, whether egg serum, plant albumen, or casein, into a soluble and easily diffusible form, peptone. Propeptone is a transformation product of albumen, absent in the digestion of meat, but present in the digestion of plant albuminates and pure egg albumen, hence always found in an ordinary mixed diet. Its presence in abundance at the end of an hour after the test breakfast indicates an abnormally slow digestion of the nitrogenous part of the food, for it should have been converted into peptone, or, at least, be found only in traces.

Ewald has shown that peptone may be formed in the presence of other acids than hydrochloric acid, especially lactic acid; and, artificially, at least a certain amount of digestion takes place at the end of an hour and forty minutes in a test tube containing a solution of coagulated albumen, water, pepsin, and acetic acid; but when a similar mixture is acidulated with butyric acid, and treated in the same manner, no digestion whatever takes place. (Martin).

As early as ten or fifteen minutes after taking food, the stomach contents obtained are acid, the acidity depending for the first half-hour upon the presence of lactic acid. For the next half-hour hydrochloric acid exists with the lactic acid; but after the first hour hydrochloric acid alone should be found. Lactic, acetic and butyric acids are not secreted by the gastric glands, but are either swallowed with the food, or formed in the stomach from the non-nitrogenous part of the food by bacterial fermentation.

The normal acidity of the gastric juice is from forty to sixty, but in patients complaining of stomach trouble this condition is very rarely found. In a series of 564 cases examined by Einhorn the acidity was normal only ninety-one times. In 187 cases there was too little acid, and in 286 cases, too

much. In 120 cases hydrochloric acid was entirely absent. In 26 cases in which I have recently examined the gastric juice the acidity was not normal in a single instance. In 5 of the cases it was too low; and in all these cases hydrochloric acid was absent, while in the remaining 21 cases the degree of acidity was too high.

Hydrochloric acid acts in several ways in the stomach. It stimulates the peristaltic action, it develops active ferments out of inactive proenzymes, and, with the aid of pepsin, converts albumen into peptone. It has nothing to do with the digestion of the carbo-hydrates of the food.

The digestion of starch begins in the mouth, the ptyalin of the saliva converting a certain portion of it into sugar. But the action of the ptyalin does not stop in the mouth, for the saliva which is swallowed with the food continues its action on the amylaceous substances, even in the stomach, until its action is arrested by the acid of the gastric juice. No further change takes place until the stomach empties itself into the duodenum, where the acid chyme, coming in contact with the pancreatic juice, is rendered alkaline, and the digestion of the starch is completed.

As albumen is changed into propeptone before being converted into peptone, so starch is changed into erythrodextrin, and then into achrodextrin, before being finally converted into sugar, so that at the end of an hour after the test breakfast if erythrodextrin be found, we know that the digestion of starch is abnormally slow.

The conditions interfering with stomach digestion are improper quality or quantity of food, bad teeth, insufficient mastification, absence of hydrochloric acid, too low or to high a degree of acidity, whether due to hydrochloric acid, or to the presence of organic acids, diminished absorption, and dilatation or loss of motor power due to atony of the muscular coats.

REPORT ON CASES OF PUERPERAL ECLAMPSIA,*

By J. J. GREEN, M. D., of Pittsburgh, Pa.

ABOUT one and one-half years ago I reported before this Society six cases of eclampsia, five of which were treated by the hypodermic use of hydrate of chloral. Within the past two months I have had in my own practice two more cases of eclampsia. One case was about the eighth month of gestation; the os was commencing to dilate when she was suddenly taken with convulsions. She had three convulsions before I could deliver. The other case was a primapara, confined a little before the termination of the ninth month. The labor proved normal and was not of un-

*Read before the Alleghany County Medical Society, August 18, 1896.

usual duration. As everything about the case seemed normal I had not made an examination of the urine. In the previous case I had, about four weeks before the birth of the child, and found no albumen. In the second case, as I have stated, I did not make an examination. About twenty-nine hours after the birth of the child she was taken with eclampsia and upon an examination the urine was found heavily loaded with albumen. The woman, however, had but one convulsion. I was called a few minutes after the convulsion and found her unconcious. In this case I used five grains of hydrate of chloral, hypodermically. In addition to the drug, I subjected her to the wet pack, and no convulsions followed. In both cases the results obtained from the hydrate of chloral were excellent.

I speak of these cases this evening because I have been following the use of this remedy in some nine cases of my own, and counting those seen in consultation with other physicians, over a dozen cases, and in all of these there has been but one death and but one case in which there seems to be any mental disorder following the attack of eclampsia, something rather unusual.

DEATH OF THE FŒTUS IN UTERO,

By D. W. BASHAM, M. D., of Neal, Kan.

THE PRODUCTS of conception may perish at any time from the moment following the fecundation of the ovum to the moment of the final act of parturition, and the causative conditions which are capable of bringing about the fatal result are as numerous and diverse as the conditions which cause an apple to wither and separate from its parent twig before maturity. The pathonomia of all the various morbid processes which may lead to the intrauterine death of the fœtus is not yet well devised; consequently, any effort to classify the causes at the bottom of such an event is likely to be unsatisfactory. However, in order to facilitate the consideration of the subject in this brief study, we will adhere to what appears to be the most natural division of the morbific agencies operating to interfere with the functions necessary to the sustenance of the fœtal existence. This plan is not essentially different from the one employed by Charpentier and Hirst, whose works embody most of what is known concerning fœtal pathology. Most of our information on this subject is the result of the labors of such men as De Paul, Priestly, Leopold, D'Ontrepont, Jacquemier, Tarnier, Page, Feling, Mathews, Duncan, Constantine, Paul, Charpentier, Hirst, Grandin, all of whose names occur with great frequency in the literature pertaining to embryonal and fœtal pathology.

It may be stated, to begin with, that vigorous fœtation naturally de-

pends upon a perfectly healthy maternal ovule impregnated with the vitalizing principle of perfectly healthy paternal semen, and the harmonious working of Nature's mediæ for joining the fructified ovum to the maternal vascular system, just as healthy vegetation depends upon a normal germinative cell, warm moist earth and the actinic rays of the sun. From this it is clear that any pathological condition which hinders perfect ovulation in the female, or anything which weakens the vital principle of the spermatic particle on the paternal side, or any condition which precludes the perfect functioning of the connecting mediæ which unite the growing ovum to the maternal endometrium must inevitably result in a diminution of the chances for perfect or even healthy fœtal development. It follows, then, that there are four groups of causes which may be responsible for failure of fœtal development and death in utero, viz.: causes existing with the mother, causes existing with the father, causes existing with the fœtus and its adnexa, and, finally, extraneous causes.

There are many pathological conditions, which, when present with the mother, preclude the possibility of successful gestation. Habit has long been regarded as one of the important causes of death to the embryo or fœtus. The probable truth is that in all cases of primal interruption of fœtal life some abnormal condition exists, either in father, mother, foetus, or environment, to account for the event, while repeated deaths at a certain stage of development are attributable to the innate disposition of the womb, or its inhibitory apparatus to repeat what has happened once before, for human life appears to be dominated by some occult law of periodicity.

Maternal syphilis is regarded by all authorities as one of the most potent and also one of the most frequent causes of embryonal and fœtal death. Ruge thought that 83 per cent. of all fœtal deaths was caused by syphilis.

There are some pathological states of the uterus which hinder intrauterine development. Hirst believes chronic endometritis next after syphilis the most frequent cause of fœtal death, and next chronic metritis. Schroeder thought that death of the fœtus in chronic endometritis was produced by extravasations of blood into the congested uterine mucous membrane, promoting uterine contractility and consequent expulsion of the fruits of conception, or, to over-nutrition of the decidua which diverts the blood supply from the fœtus and permits it to die for want of nutrition.

Abarbanell is said to be the first to mention chronic metritis as a cause of intrauterine mortality. According to Hirst the death of the fœtus in chronic metritis is due to the presence of fibrous adventitious tissue in the uterine walls of sufficient density to interfere with the normal distensibility of the organ, and consequent limitation of growing space. The existence of much fibrous tissue in the walls of the uterus as a result of endometritis, or metritis, or syphilis, or any other cause, whatsoever, would certainly

interfere with the proper implantation of the placenta and compromise the vascular exchange between the mother and her offspring.

Death of the fœtus may be due to disease of the uterine appendages, and to any of the serious inflammatory diseases of the pelvis.

Scanzoni discovered that a profound degree of anæmia was deleterious to the safety of the fœtus. It appears to make but little difference what cause is responsible for the anæmia so far as the effect upon the fœtus is concerned.

The evil influence of grave and chronic diseases upon the health of the fœtus has been noticed by many authors. The maladies which interfere most with the course of pregnacy are chronic paludalism, cancer, diabetes, nephritis, icterus gravidarum, typhoid fever, pneumonia and tuberculosis, and, in fact, any febrile disease in the course of which the temperature rises as high as 107°. Runge, Hohl, Kaminsky and Winckel have separately studied the effects of elevated temperature upon fœtal life, and Runge discovered that a fever of 107° in the mother, though of the most transitory duration, always killed the fœtus.

The good works of Feling serve to demonstrate how difficult it is for the pregnant woman who suffers from nephritis to bear a living child.

He has demonstrated furthermore that the destruction of fœtal life in maternal nephritis is due to pathological metamorphoses in the maternal part of the placenta and that these pathological conditions are like the changes encountered in the cerebral and pulmonary systems as results of chronic renal inflammation. Charpentier believes that an excess of urea in the hæmic current of the mother may cause death of the fœtus by direct poisoning.

Plumbism affecting the mother exerts an extremely evil influence over the child in utero.

Constantine Paul collected 123 cases, sixty-four of which terminated in abortion, four in miscarriage, five in still birth, and but ten of the children born were able to survive the third year. Arsenicism and cuprism may bring about the death of the fœtus.

There are a number of important causes of intrauterine death of the fœtus which are justly attributable to the paternal side. It is clear that a husband laboring under the devitalizing influences of any grave disease like cancer, tuberculosis, diabetes, or Bright's disease, cannot generate seminal fluid sufficiently endowed with spermatozoa and the life-imparting principle to give the necessary impetus to the ovule by the act of fecundation to carry the embryo safely through the stages of intrauterine development and lay the foundation for vigorous adultage. "All is well that ends well," but in order for some things to end well it is necessary to begin well. Priestly gives an account of a young wife who gave birth to a feeble child and then aborted three times in succession, when her husband, who was afflicted with nephritis, perished of uremia. D'Ontrepont speaks of the

wife of a consumptive man whose offspring died at the eighth month of intrauterine life for five successive gestations. This woman afterwards wedded a robust man and carried four healthy children to full term. Lead poisoning exerts a profound and baleful influence over the generative functions of the male.

Paul has paid particular attention to the high percentage of abortions, miscarriages, dead births and the frailty of the offspring of husbands afflicted with plumbism.

The progeny of the syphilitic man, as all physicians have observed, is extremely apt to perish in utero. It is highly probable that the profound effect of the syphilitic poison upon the nervous and glandular tissues of the body, with the consequent impairment of function, tends to lower the germinative force resident in the generative particle contained in the liquor seminales.

The causes of intrauterine death are attributable to the fœtus or its adnexa. Here syphilis again plays a conspicuous role as a causal agent in the interruption of gestation. The fœtus may be infected either from the paternal or maternal side. The modes by which syphilis destroys the fœtus are diverse. There have been many erudite discussions and dissertations regarding the transmissibility of the syphilitic germ from father to offspring, from offspring to mother, from father to mother and mother in turn to offspring, with the result of leaving the impression upon practical minds that when syphilis enters the arena each individual of the interested trio, progenitor, progenitress and the progeny, soon comes to bear some mark of the subtle poison. It appears that the harmful tendencies of syphilis of the fœtus are due to the extensive formation of connective tissue found in the syphilitic, and which is far more pronounced in the syphilitic fœtus than in the adult. This adventitious tissue is formed in the brain, lungs, liver, kidneys, spleen, blood vessels, cartilaginous and osseous structures. Thickening of the tunicæ of the umbilical vein to the extent of occluding the lumen of the vessel is mentioned by many observers as a cause of fœtal death. The epiphyses are often seen disjointed from the apophyses as a result of osteo-chondritis. A pemphigoid eruption is one of the cutaneous manifestations of prenatal syphilis. This may account for the macerated condition in which the fœtus dead of syphilis is so often born. The cutaneous lesions permit the amniotic fluids to permeate and act directly upon the somatic structures, and thus facilitate the process of maceration.

It is asserted by Neuhaus that typhoid fever may be communicated to the fœtus in utero; but, notwithstanding 65 per cent. of pregnant typhoid patients expel the contents of the womb during the course of the disease, the result is not attributed to the existence of the disease in the fœtus itself, but to pyrexia, hæmic metamorphoses and defective oxygenation of the

blood from insufficiency of the pulmonary apparatus to perform hæmatosis in the mother.

Anasarca of the fœtus generally results in the destruction of its life between the fourth and eighth month.

Pneumonitis is one of the diseases capable of afflicting the fœtus in utero and, of course, may cause its death.

There are a number of pathological conditions limited to the fœtal adnexæ which are prone to interrupt intrauterine life. Diseases or pathological changes affecting the umbilical vein, producing an increase in the thickness of the tunicæ of the vessel and consequent stenosis or occlusion of its lumen, may prove fatal to the fœtus.

Torsion of the funis is not regarded as a frequent cause of fœtal death; the extreme twisting of the cord found in children born dead is believed to have occurred in utero post-mortem.

Some of the diseases which affect the villi of the chorion are apt to terminate in death of the fœtus. Calcareous degeneration of the chorial villi tends to diminish the blood supply to these structures, and consequently may result in circumventing the purposes of the villi in the nutrition of the ovum. The formation of connective tissue about the villi and extravasation of blood into the structures act alike in shutting off nutrition.

The extraneous causes of death of the fœtus in utero are traumatisms communicated through the mother's abdomen, sudden violent muscular effort and strong and sudden impressions upon the nervous system of the mother. I once had a patient, the mother of several healthy children, who, in the seventh month of gestation, was assisting her husband in lifting a heavy weight from a wagon upon which effort motion suddenly ceased and was never felt again. Six weeks afterwards I delivered her of a dead fœtus which had undergone considerable post-mortem change. I remember another lady who about the middle of the eighth month of her first pregnancy, when walking in the orchard, was suddenly startled by almost stepping on a large snake. Her motion ceased and two weeks later I delivered her of a child undergoing post-mortem changes. I recall a third case, that of a lady, the mother of healthy children, whose husband had an altercation with a man in her presence, and suddenly precipitated himself into a fight. She aborted that night.

The changes found in the fœtus after death have been studied especially by Lampereur, Sentex and Ruge, and Charpentier has adopted their classification in his work on diseases of the fœtus. According to their observations, the recognized post-mortem changes are: dissolution, mummification, maceration, putrefaction, alterations which are peculiar and of doubtful nature.

The embryo is apt to undergo dissolution when it perishes during the first two months of gestation.

Mummification is described by Sentex as a drying process in which the fœtus shrinks in bulk, becomes dessicated and the liquor amnii almost or quite disappears.

Maceration is described with very great pains by Lempereur, Sentex, Ruge and Martin. The process consists in universal softening and breaking down of all the tissues. These are changes peculiar to the syphilis fœtus, but children dead from other causes sometimes undergo the same kind of decay.

Putrefaction is the form of decay which takes place when air gains access to the dead child in utero and occasions a rapid decomposition attended by the generation of putrid vapors and baneful gases which are fraught with great danger to the mother.

As a rule the mother suffers but little from the presence of a dead child in her womb. It is only when the membranes have been ruptured and air has been admitted into the uterine cavity that the health of the mother becomes endangered. The gaseous products of the decomposing fœtus are said to be extremely deleterious, while at the same time they are capable of easily contaminating the maternal blood current. A woman with a dead and decaying child in her womb may experience rigors, fever, vomiting, anorexia, singultus, and, in short, all the train of symptoms characteristic of contamination of the hæmic current.

The diagnosis of a dead child in the womb is by no means an easy task. It is not until several days after the demise of the fœtus that anything approaching certainty becomes possible, and even then much uncertainty attaches to the conclusion. If the accoucheur has examined his patient prior to the suspected demise of the fœtus and has heard the child's heart beating, and afterwards cannot hear it, death of the fœtus is strongly suggested, but even then he cannot assure himself of the condition. Schling first noted the greater elevation of the temperature in the gravid uterus than in the surrounding structures, and Constain and Feling are credited with the suggestion that if the thermometric temperature of the gravid womb be found no higher than that of the vagina, then the child is dead. A few days after the death of the child the womb loses its natural resiliency and the lower segment, when palpatated per vaginam does not offer that elastic resistance to the finger which is so characteristic of the state of pregnancy. This is due to the diminution in the volume of amniotic fluid. Tarnier speaks of the flaccid condition of the mammary gland following death of the fœtus. The flabbiness of the gland may be preceded by a lacteal show. Stoltz discovered a crackling sound which he thought was synchronous with the maternal pulse. Grandin observed a like sound, but did not think it was isochronous with the mother's pulse. The subjective symptoms may be of considerable value in formulating an opinion. The woman observes cessation of movement. She often feels a sensation of

coldness. The child may be felt to fall from side to side as the mother changes position. She may have a lumbago and a feeling of weight in her hypogastrium. Vomiting and other sympathetic symptoms of gestation are no longer present.

The mother, as a rule, experiences but little inconvenience from the presence of a dead fœtus in the womb. However, I do not believe that the danger is as insignificant as most text books would lead us to believe. The presence of a putrefying child in the womb is admitted by all to be extremely dangerous to the mother, sometimes proving rapidly fatal. I believe the danger is greatly enhanced by early rupture of the membranes, and the slow escape of the waters at the time of delivery. I recollect two such cases, in which the patients barely escaped death.

The average time of retention in utero after death has been reckoned about fifteen days. In four cases, whose histories I recall, one was retained six weeks, one two weeks, one five or six days, and one six or seven days.

The expulsion, when left to nature, is generally effected with but little difficulty. These labors are generally protracted. There is a marked tendency toward bad positions of the dead fœtus with a high percentage of cross and shoulder presentations.

The question which propounds itself to the accoucheur when confronted with a case of dead fœtus in utero is: Should the case be left to nature, or should it be terminated by art? Most writers have counseled noninterference, and the difficulty attending the diagnosis and the apparent inocuousness of a dead child in the womb seems to establish the correctness of such advice. Perhaps so long as the membrane remains intact it is comparatively safe to await the action of nature. Such cases should be seen often, for as Listman has indicated to us, the freedom from danger is by no means absolute. My own experience has been that when the child perishes after the beginning of the seventh month, when nature has already commenced the work of preparing the uterus for the final act of delivery, there has been but little difficulty in evacuating the womb, for the os is then somewhat thin and distensible. But when death of the fœtus has occurred in the earlier months of gestation, in the fourth or fifth month, the woman may remain in labor from three to five days if left to herself. I have seen two cases in which the treatment consisted of antiseptic lotions, anodynes and expectation where the womb was four days in expelling its contents. In such cases I believe it would be infinitely better and safer to disinfect the genital tract and effect the delivery by art under the modern aseptic orthodox conditions. The rents which occur in the cervix and vagina during the passage of a putrid fœtus afford an excellent nidus for the retention of septic material which may readily be carried to the peritoneum or into the general system. Therefore, after the expulsion of a decaying fœtus, the woman should receive a hot antiseptic douche to wash away all

the detritus and thoroughly cleanse all the rents and breaches into the blood-bearing area, and finally a soft iodoform pencil should be placed within the cervix and maintained in place until solution occurs.

More important is the prophylactic treatment for the prevention of habitual death of the fœtus, because here two lives are under consideration instead of but one; and besides the prospects and happiness of many a family depend upon the presence of living offspring. Where syphilis is the cause everybody knows the treatment, but it should be remembered that in such cases the treatment is much better when effected before pregnancy occurs. I do not deem it advisable to continue the iodides through the entire term of gestation, for I once accidently produced a miscarriage with the iodide of iron and I believe that potassic iodide possesses abortifacient properties. When necessary to continue the treatment during the full term of gestation, I believe that the method advocated and practiced so long ago, with success, by Sir James Y. Simpson is far preferable to the iodo-hydrargyrate medication. His plan consisted in the administration of potassium chlorate with the hope of appropriating its oxygen to the fabrication of the materno-fœtal blood constituents.

When the cause of habitual death of the fœtus rests in either chronic metritis or chronic endometritis the most rational procedure consists in the application of the recognized principles of gynecology for the removal of the pathological obstacle in the way of fœtation. I think that impregnation is more likely to follow when curettage and tamponage have been employed for the cure of endometritis than after treatment by other methods. When the pregnancy is once established in a uterus whose structures have sometimes been the seat of inflammatory processes, a prophylactic treatment in the interest of the child and the one which happily tends to ameliorate maternal suffering should be instituted at once. The medicament which most nearly fulfills all the requirements in such cases is found in the fluid extract of viburnum prunifolium which is well suited for continuous administration. This remedy, although not an ideal one, is, nevertheless, capable of exercising a beneficent influence over the female generative system.

Important Meeting.—The Linton District Medical Society will meet at Mexico, Mo., Tuesday, November 10, 1896. Following is the program: "Functional Heart Trouble," Dr. F. H. Kallmeyer; "Physiological Effects of Alcohol," Dr. Connaway; "Penetrating Wounds of Abdomen," Dr. F. J. Tainter; "Fistula in Ano," Dr. C. A. Rothwell; "Climacteric Hemorrhage," Dr. McComus, Sr.; "Puerperal Eclampsia," Dr. E. S. Cave; "Induction of Premature Labor," Dr. J. A. Evans; "Suppurative Otitis," Dr. F. M. C. Usher; subject not given, Dr. J. C. Parrish; "Pathological Germs in Drinking Water," Dr. C. T. Varnon. The officers are: Dr. T. J. Baskett, president; Dr. S. S. Davis, first vice-president; Dr. J. A. Evans, second vice-president; Dr. Peter Arnold, secretary; Dr. Martin Yates, treasurer.

SYPHILITIC ULCERS,

By A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine of St. Louis.

AMONG the manifestations of syphilis which are observed at or near the end of the secondary period and which are also seen in the so-called tertiary stage ulcers take a prominent position. They possess peculiar characteristics not found in other ulcers and, as a rule, they occur in syphilitics whose general condition, for some reason or other, is not up to the standard which good and thorough treatment should establish. But this alone might not be of sufficient force to bring about the condition. Other factors are at work and chief among these should be mentioned living amidst unhygienic surroundings, together with an insufficient quantity or a poor quality of nourishment. To this may be added, as marked aggravating factors, excesses in drinking and in venery. Alcoholic excesses certainly act as the most potent aggravating factors, in many instances, and the evidences are plainly patent in such. If there be lack of or improper nourishment, excessive hard labor may also contribute to the formation of these ulcers. It is very easy to understand that, under any of the circumstances just mentioned, good tissue cannot be formed and the tissues already existing do not possess any marked powers of resistance but are rather apt to break down and undergo rapid degeneration. Not only is there no resistance but there is a tendency to a rapid destructive process, a breaking down of the tissues and a spreading of the lesions.

Syphilitic ulcers manifest themselves in a variety of forms and this very fact renders them doubly interesting. Their morphology is of interest on account of the numerous variations which may be observed and which, in some cases, might lead to errors in diagnosis. For this reason a thorough study of these lesions should be made and each example which presents itself be carefully observed. It will then be found that a thorough knowledge of the general characteristics and a good appreciation of individual types will prove of the highest value in formulating a diagnosis. It will enable the observer to make an immediate and correct diagnosis of the case, even when a history is unsatisfactory and accompanying symptoms are either obscure or totally wanting. These are advantages of no mean value, and confer an advantage on the physician which could hardly be gained by any other means.

Syphilitic ulcers offer a great many varieties in their appearances and mode of formation. They may be either deep or superficial, or slow or rapid in their course. On the other hand, they may be either comparatively benign or

phagedenic in character and destructive in their evolution. In form they may be either round or ovalish, although the tendency is to the former to such an extent that a very round ulcer should always awaken suspicion and lead to inquiries as to its true nature. On the other hand, ulcers of syphilitic origin are met with which are irregular, and this usually points to some irritative condition brought about either by applications or through some accidental trauma or injury. There are other factors which also exercise some influence upon the production of an irregular form. Location is one of these. If situated in the groins the form will be more inclined to irregularity than if situated on the limbs. Another cause lies in the deteriorated condition of the tissues which are attacked. It is very easy to understand how, when these are below par and have no powers of resistance, an ulcerative process may easily become virulent and bring about a rapid and serious destruction closely akin to if not identical with phagedena.

In general, the edges of syphilitic ulcers are slightly raised or markedly so, to such an extent that a distinct ring may be felt. Not only this, but there exists in addition a certain degree of induration which is very appreciable to the touch and which can be distinctly made out. In some examples this induration is of such a marked character that it has often led to the suspicion that the process was a malignant instead of a luetic one. This is not to be wondered at when we take into consideration other subjective symptoms which will be mentioned later on. Whilst the edges may be raised it is not unusual to find them undermined. This process of undermining may exist to a very limited extent only, or it may be of such a marked character as to create alarm. A true phagedena may declare itself and extend with increasing destruction of tissue, unless strenuous and radical means are employed.

The floor of a syphilitic ulcer may be comparatively smooth and even present a glossy appearance. On the other hand, it may present a worm-eaten look and show a roughness which is of a very marked appearance. Between the two a very large number of variations may be encountered and all of these are dependent not only upon the virulence of the process but upon the resisting powers of the tissues as well. One thing may be safely asserted in this connection, which is, that if the ulcer begins upon a trauma, such as a stab, a cut or a gun-shot wound, it will always be of a more severe character and present more formidable signs than if it takes place upon the unbroken skin. The loss of vitality and diminution of nutrition will not fail to leave their impress upon the luetic process, to the greater detriment of the reparative process. Of course, this applies to neglected cases alone; as, in those which are properly cared for, not even an ulcer will manifest itself. If the ulcer be proceeding in the proper manner the reparative stage will show its effects by the granulations which cover its floor, and here again many variations can be observed. They may be scanty and sparse and of

a pale hue, indicating that the reparative process is inadequate. On the other hand, they may be very abundant, large, and pale and bleed very easily. This also is an indication that repair is not proceeding in a proper manner. The great size of the granulations is indicative of an embryonic process and not of the normal mode of repair. This latter is shown by a well developed growth of granulations of a rather bright color, evenly distributed, and of a certain degree of resistance to the touch. In fact, they can be best described as closely analogous to the granulations observed in a wound occurring in a healthy individual. In short, they may be summarized as being pale and scanty, large, tender and exuberant, or well-formed and fairly abundant and bright colored.

The secretion of the syphilitic ulcer has different varieties also, in accordance with the lesions whence derived. In quantity it may be profuse or scanty, this being governed by the depth and extent of the destructive process. In quality it will be found to be rather thick or only so to a slight degree. On the other hand, it is apt to be quite thin, and these varying degrees depend upon the secretion itself and its component parts. For it may be purulent and loaded with shreds and débris as well as necrosed tissues; or it may be purely purulent. Again, it may be sero-purulent, serous or sanious, and any combination of two or three of these types may be co-existent in the same ulcer. An odor is an invariable accompaniment, and this may be comparatively slight or scarcely perceptible to the sense of smell. The other extreme exists in those cases in which it has a very distinctly fœtid and nauseating odor which is, at times, so penetrating as to be unbearable to those who come in contact with the patient. The intensity of the odor, together with its fœtidity, is generally a good index of the severity and destructiveness of the process which is going on. This odor is one distinctively *sui generis* and which of itself should almost be sufficient to establish a diagnosis in a given case. Like that of condylomata lata, more especially in the female, it is most marked and possesses a peculiarity which cannot be found in any other diseased condition. It is an odor with which every physician should thoroughly familiarize himself, as it will often prove an invaluable help in awakening, if not a certainty, at least a suspicion of the true nature of the case presenting itself, and thus lead to a further and thorough examination and correct diagnosis of the condition and its cause.

So far as the localities in which syphilitic ulcers may be found is concerned nothing very definite can be stated. It may be said, in general terms, that they are apt to occur anywhere. They are found in all the accessible cavities of the body, such as the external auditory meatus, the nares, the pharynx, the larynx, the vagina, the rectum and the urethra. Not only this, but they have been found in the œsophagus, the intestines, affecting various viscera, both solid and hollow, and the periosteum, not to

mention the brain and cord. In this consideration of the subject, however, the lesions will be considered only in so far as they affect the integument and the parts directly underlying it, as a thorough review of the subject would necessitate the writing of a monograph which would rise to the dimensions of a volume. Besides this it would include so many other accompanying conditions that the subject would become practically inexhaustible. To take into consideration all the forms of these ulcers and their variations as they affect the skin would take up more space than the limits of an ordinary paper would permit; so but a few typical examples will be taken up in order to give a general idea of the process and the appearances which it presents.

FIG. 1. Multiple Small Ulcers.

The ulcer may begin as a multiple manifestation of the trouble. In such a case a number of small, round, rather deeply excavated lesions of the size of the finger-nail show themselves and more generally upon the lower extremities, as shown in Figure 1. They are circular in form and have well-defined borders and indurated edges. Their distribution is discrete, but it is no unusual thing to find two or more coalesce and form an irregular ulcer. A strange fact which I have noticed in connection with these is that they rarely or never occur below the ankle. I have also noted in my experience that this small, deep variety of ulcer occurs in women and is

not found in men. It may be stated in explanation that when the small syphilitic ulcer occurs in men there are but two or three lesions at most, and not fifty or a hundred, as I have noted in women. The converse is equally true—women are seldom attacked by the large, deeply ulcerating

FIG. 2. Large Deep Ulcers.

form of ulcer. As the numerous lesions in the form under consideration are rather closely situated to one another, it can be readily understood that the integument is generally indurated and wooden to the touch. Not only this, but a dark, brownish-red tint is affected by the integument and here

and there some losses of substance in the upper layers of the skin are apparent. When these losses become extensive, large ulcers are very apt to be formed or to follow irritations affecting the implicated area. This is often the cause of the beginning of an ulcer, as has already been intimated above.

Another variety of syphilitic ulcer which will be taken up here is what might justly be termed the large, deep ulcer. It is a form which is frequently seen more especially in public hospitals. The small and deep variety occurs much more frequently in private patients and such as live under fairly good circumstances. The large form is always characteristic of neglected cases, and by this is not meant that they do not receive the attention of physicians, but rather that the efforts of these latter are misdirected, inadequate, or entirely wrong through a misconception of the true nature of the disease which is present. Upon examining one of these large and deep ulcers it will be found that its contours follow the general rule of being either round or oval. One peculiarity which is noticeable in nearly every one is that its floor is very markedly irregular. This would lead to the supposition, and very naturally, too, that the ulcerative process itself is much more rapid in some portions than in others. This leads to the existence of ridges on the floor and an unequal growth of granulations. The edges are indurated, as has been described before, and it is not an unusual thing to observe a number of satellite ulcers around the large one, as shown in Figure 2. These secondary ulcers do not occur until the primary ulcer is well developed, and they have a tendency to enlarge and ultimately to coalesce with the older lesions, thus forming a rather extensive and ragged-looking lesion.

Whilst ulcers which are large are usually deep, not a few are seen which are not only extensive but comparatively shallow. There does not seem to be such a marked tendency to destroy in a vertical direction as to spread horizontally. In this form the general rule of symmetrical distribution does not hold good, and the lesion is usually single. Moreover no satellites show themselves and the extension of the process occurs peripherally and rather rapidly. A good example of such a lesion may be found in Figure 3. It will here be observed that the general shape is that of a broad oval, with well-defined elevated edges which were hard. In the case figured one characteristic of this variety was noted—its stubbornness to treatment. The granulations were rather scanty and somewhat pale, with here and there a glazed base, presenting a rather unhealthy appearance. It is true that the patient was anemic and the dark-red color seen about such ulcers did not exist to that degree which is usually observed. Another unusual circumstance, which is rather exceptional, was noted: the ulcer was quite sensitive and painful to the touch. This is noted in other superficial syphilitic ulcers, and is no doubt due to the fact that the destructive

action has not been sufficiently deep to destroy the end terminations of the cutaneous sensory nerves, but rather just sufficient to denude them of their normal protective covering and thus permit them to be exposed to the irritation of any external influence which may present itself. The pain is of

FIG. 3. Large Superficial Ulcer.

a rather acute character and is a constant source of discomfort, as well as most annoying on account of the constant vigilance which must be exercised. In the case shown in Figure 3 we see an unusual locality for such a large ulcer. It is on the left cheek and, as a rule, ulcers of the face are smaller,

deeper, and more irregular in contour. Besides, they occur in different localities, their sites of predilection being about the atal nasi, the auricle, the eyelids, the commissures of the mouth and on the chin. In these cases the ulcers penetrate the skin rapidly, granulate freely, and heal in a very short time. In fact, the vascularity of the parts named contributes in no small degree to this rapid *restitutio ad integrum* which is experienced.

As has already been stated, a marked feature found in connection with syphilitic ulcers is the absence of pain, or but a slight manifestation of that objective symptom. This, of course, applies only to the ulceration so long as it has not extended too far in a vertical direction. If, however, this ulceration continues to the underlying tissues, a different state of affairs is set up. The periosteum or even the bone will become implicated, and pain of a marked and constant character will make itself evident. This latter may become so severe as to be excruciating. It is by no means rare to encounter cases of caries or necrosis of the bone manifesting themselves as a result of ulceration of the integument or of the mucous membrane. Of course it is a direct consequence of an extension of the destructive process, and forms a complication requiring immediate attention. The ordinarily successful modes of treatment must be modified and, in many cases, radical measures adopted of a surgical nature and such as are pursued in bone surgery. Whilst these cannot be thoroughly efficient if used alone, they will prove in the highest degree successful when combined with the proper medicinal means.

Before proceeding to a discussion of the treatment of syphilitic ulcers it may not be inopportune to say a few words respecting the scars which follow them. The general appearance is that of a rather thin formation which is friable. It is at first of a pigmented nature and it eventually bleaches centrifugally, finally assuming a bluish-white color of a dead appearance. This impression which it conveys to the observer is that it is not good, strong, firm cicatricial tissue. And such is the case so far as resisting qualities are concerned. An injury of a rather minor character will not be resisted as it should be, but it will produce a relapse to the former chronic condition with one important difference, that the newly implicated area of destruction will be larger than the original one. For this reason care in the protection of syphilitic scars should always be enjoined.

The treatment which is to be pursued cannot be given except in a general way, as almost every case requires modifications which will readily suggest themselves. Certain broad lines, however, should be followed and adhered to in order to obtain satisfactory results. Energetic internal treatment is of the greatest importance and the mistake should not be made that iodide of potassium is alone sufficient. First of all, the most nutritious food should be given in order to repair the waste and, as an adjuvant to this, a mixture of citrate of iron and quinine will be found highly beneficial. The following may serve as an example:

℞ Ferri et quiniæ citratis.....ʒvj
Syr. limonis
Aquæ destillat.....aa ʒij
M.
Sig.: Teaspoonful in water fifteen minutes before each meal.

Then the mixed treatment should be begun and efficient doses given. It is best to begin with a rather active plan, as it will have a tendency to abort or strangulate the process more especially when combined with nutrition. A mixture like the following will be found to produce a rapid effect:

℞ Hydrarg bichloridi.....gr. iv
Kali iodidi.....ʒj
Vin. kola.....ʒij
Syr. sarsaparillæ co.,
Aquæ destillat.....aa ʒj
M.
Sig.: Teaspoonful in milk after each meal.

After this quantity has been taken it will be found of advantage to administer ten drops of mercauro in water after each meal. With such a treatment a good alterative effect is produced and the irritation of the intestines attending the ingestion of protiodide or biriodide of mercury is avoided, more especially if the alterative mixture be taken in a tumblerful of milk, which acts as a protector to the gastric mucous membrane.

So far as local treatment is concerned it may or may not include surgical procedures, and these methods are wholly governed by the conditions presented. In ordinary cases it is quite sufficient to thoroughly cleanse the lesion with a one-to-five-hundred solution of bichloride of mercury, dry the floor of the ulcer and then liberally dust campho-phenique powder over it. It may be necessary in some cases to stimulate somewhat, and in such cases after using the same cleansing wash an application of an acid nitrate-of-mercury solution varying in strength from a scruple to a drachm to the ounce of water will be found of benefit. This is not sufficient, however. An ointment composed as follows should be applied and good granulations will soon follow:

℞ Hydrarg nitrat.....gr. x
Hydrarg oleat., 5 per cent.....ʒij
Ung. Hydrarg. cinerei.....ʒvj
M.
These applications should be renewed twice a day and good results may be expected in a short time.

It will be found necessary in some cases to resort to more strenous measures. Whilst painful this element may be eliminated by the preliminary use of cocaine. The method to employ is a thorough curetting of the floor and either scraping well or cutting off the indurated border. In fact, the surgical treatment is to be such as is practiced in non-specific, chronic, indurated or indolent ulcers. This being done, the dressing of bichloride

solution and powder may be applied. Occasionally it is found, after curetting has been done, that the underlying bone is also affected. If this be the case thorough scraping or even chiseling of the bone must be practiced, the wound thoroughly irrigated with strong bichloride solution and packed with bichloride gauze.

So far as the use of a powder used in dressings is concerned others, beside the one mentioned, may be employed, such as aristol, dermatol, europhen, etc., but the one given has proven their superior in my hands.

DIVISION OF THE VAS DEFERENS IN HYPERTROPHY OF PROSTATE,

By OLAF TH. SHERPING, B. Sc., M. D., of Enderlin, N. D.

MR. REGINALD HARRISON recommended in the *Lancet* last Februaryto tie and divide the vas deferens in prostatic hypertrophy in preferenceto castration. The advice coming from such an eminent authority, I did not hesitate in trying this procedure.

About one month ago B. H., age 52, presented himself for treatment for hypertrophy of the prostate. He had been suffering for the last twelve years from the common symptoms of this disease, but the last month they were of such a severity that the urine had to be drawn by the help of a catheter and the bowels moved by enemæ. Rectal examinations showed the lateral lobes to be enlarged so as to press upon the rectum, while the middle lobe formed a tumor the size of the large end of an egg, encroaching materially upon the lumen of the rectum. The operation was performed as described by Mr. Harrison as follows: "The scrotum having been shaved and prepared antiseptically, the tube is sought for as it enters the scrotum. It being held subcutaneously between the finger and thumb, a vertical incision through the skin is made over it to the extent of an inch or so. The vas is separated from the spermatic cord and surrounding structures, care being taken not to drag on the testicle. After the vas is cleared of all other structures a loop of it is drawn out through the wound by a blunt hook and a silk ligature thrown around it under the hook and knotted tightly, the ends cut short and the extraneous portion of the vas also cut off close to the ligature. The pedicle is dropped back into the wound. A small drainage tube is fitted and the wound closed by one or two catgut sutures. Both vasa may be so treated simultaneously, but he prefers doing one at a time." In this case I operated on both at the same time and also omitted the drainage tubes, the wound healing by first intention. The patient was allowed to be out of bed on the third day.

The result of the operation was surprising. In one week the symptoms had abated so that the urine was passed without the use of the catheter and the irritation of the bladder allayed so that a larger quantity of urine could be retained without causing the unbearable straining which had existed before the operation. At the present, one month after the operation, a slight shrinking of the gland can be recognized by rectal examination. The operation is preferable to castration for its simplicity and consequent rapidity in execution, this being an item to be considered, as the operation has to be done mostly on the aged, who suffer simultaneously from heart or kidney diseases; no pain if the vas is well cleared of other textures; no hæmorrhage, and foremost of all, lesser mutilation of structures. It seems improbable that that gland should have lessened in size in such a short time by infringing on its physiological function, but it is more plausible that the nervous supply is affected sympathetically, which in turn lessens the blood supply so as to cause depletion and subsequent shrinking and also lessening in the first the existing irritation, the first lessening in size being by allaying inflammation and not by actual atrophy.

THE PAUL PAQUIN SERUM IN TUBERCULOSIS.

THE following report was presented at the meeting of the Virginia Medical Society and the Mississippi Valley Medical Association last month. The report is a fair one, giving good, bad and indifferent results, and is classified in order to make possible comparisons as to the effect of this serum and the products used in Europe:

PULMONARY TUBERCULOSIS.

		NUMBER OF CASES.
Class 1.	Destructive broncho-pneumonia and cavities	37
Class 2.	Destructive broncho-pneumonia without recognizable cavities	66
Class 3.	With diffuse febrile pneumonia with or without a destructive process	19
Class 4.	With diffuse non-febrile broncho-pneumonia with or without destructive cavities	19
Class 5.	With circumscribed febrile broncho-pneumonia	35
Class 6.	With circumscribed apyretic broncho-pneumonia	13
Diagnosis not reported clear enough for classification		32
Hip-joint tuberculosis		2
Laryngeal tuberculosis		2
Ovarian tuberculosis		1
		226

In every one of these cases the diagnosis was verified microscopically. During the treatment of these 226 cases the following results were obtained:

	SUBSIDED.	REDUCED.	STATIONARY.	NOT RECORDED.
Effect of serum on fever.....	60	56	26	84
		SUBSIDED.	UNCHANGED.	
Effect of serum on night sweats...		69	17	140
	INCREASED.	UNCHANGED.	DECREASED.	
Result of serum on weight.....	125	15	27	59
Result of serum on strength.....	154	9	24	39
Result of serum on appetite.....	114	15	31	66
	DISAPPEARED.	MITIGATED.	UNCHANGED.	
Effect of serum on local signs.....	46	58	29	93
		REDUCED.	ALTERED.	
Effect of serum on tubercle bacilli.	40	103	7	76
		IMPROVED.	UNCHANGED.	
Effect of serum on general well being exclusive of 40 cures.....		145	9	32

Number of recoveries that seem complete and permanent..... 40
Number of apparent recoveries with existing lesions in statue quo..... 3
Number of improved, capable of performing usual duties..... 41
Number of improved, to a lesser degree..... 69
Number of deaths reported..... 32
Number of cases disappeared from observation or under various treatment.. 41

226

As to the pulmonary cases, the extent, stage and importance of the conditions at the beginning of treatment were as follows:

In class No. 1 there were 20 cases in advanced stage; 3 in early stage.
In class No. 2 there were 33 cases in advanced stage; 6 in early stage.
In class No. 3 there were 12 cases in advanced stage; 0 in early stage.
In class No. 4 there were 9 cases in advanced stage; 0 in early stage.
In class No. 5 there were 12 cases in advanced stage; 3 in early stage.
In class No. 6 there were 7 cases in advanced stage; 1 in early stage.

93 13

Not classified accurately enough for satisfactory description of stage.....115

These ranged between the first and third stages and belonged to various classes.

THE ST. LOUIS ACADEMY OF MEDICAL AND SURGICAL SCIENCES.

This new society is doing some splendid scientific work and in this respect challenges comparison with some organizations of great age. Instead of attempting to destroy, the members of the Academy are building; instead of bickering, they are fraternizing. At the first of the fall meetings of 1896, held at the Woman's Hospital, Sixteenth and Pine streets, October 16, 1896, the following program was rendered:

By special invitation Doctor G. M. Phillips read a paper on "VARICOCELE; ITS PROPER TREATMENT." The paper was discussed by Doctors Ohmann-Dumesnil, Emory Lanphear and Paul Paquin. Doctor A. H. Ohmann-Dumesnil read a paper on "CORNU CUTANEUM ET UNGUALE." Discussed by Doctor Phillips. Doctor Emory Lanphear presented a specimen of UTERINE FIBROID removed by hysterectomy, with recovery.

Doctor George M. Phillips, Professor of Genito-Urinary Surgery in the Barnes Medical College, having presented satisfactory credentials, was elected to fellowship.

FORMULAE.

A Mixture for the Vomiting of Perityphlitis.—The following prescription is attributed by the *Gazette Hebdomadaire de Médecine et de Chirurgie* to Pick:

℞ Menthol ..... 8 grs.
Cognac ..... 600 grs.
Tincture of opium ..... 150 grs.

M. From ten to twenty drops are to be taken several times during the day, in a little sweetened water.—*Ibid.*

A Remedy for Obstinate Spasmodic Cough in Adults.—The *Revue Internationale de Médecine et de Chirurgie* for August 25th attributes the following formula to Dr. J. B. Babcock:

℞ Bromoform ..... 113 grains.
Tincture of gelsemium sempervirens ..... 120 grains.
Syrup of lactucarium ..... 975 grains.
Pulverized gum arabic ..... q. s.

M.

Atropine in the Treatment of Pharyngeal Diphtheria.—Elsaesser (*Therapeutische Monatshefte*, August, 1896; *Therapeutische Wochenschrift*, August 23, 1896) employs the following formula:

℞ Atropine sulphate ..... 0.045 grain
Cocaine hydrochloride ..... 0.75 grain
Bitter-almond water ..... 300.00 grains

M. S.: One drop every hour for each year of the child's age.

For adults, according to the patient's constitution and the severity of the disease, he orders from ten to fifteen drops every hour. The frequency of administration is important, and at first it should be kept up even at night; consequently great care is necessary on the part of the nurse.

The Treatment of Urticaria.—The *Glasgow Medical Journal* for September states that Mr. Hutchinson reports, in the July number of the *Archives of Surgery*, the effects of treatment in the case of a lady who had for six months suffered from a peculiar form of tuberose urticaria. The attacks affected the face and caused much swelling; also the throat, producing such a sense of suffocation that the patient feared she would choke. Arsenic was used without any obvious effect. Then the patient was ordered a mixture containing in each dose two grains of quinine and a drachm of tincture of cinchona, and after this had been continued for four months the liability to the attacks of urticaria had entirely ceased and the patient's general health was much improved. At the end of the quinine treatment an attack of shingles on the side of the chest occurred.

Savine in the Treatment of Vegetations of the Vulva.—Dr. Lutaud (cited in the *Journal des Practiciens* for September 26) uses for small vegetations the following formula:

℞ Powdered savine, Desiccated alum, of each ..... 25 parts
Corrosive sublimate ..... 1 part

M.

A more active application is the following:

℞ Powdered savine, Iodoform, Salicylic acid, ... equal parts

M.

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ANTI-SOLIPEDIANA.

The distinguished and learned Josiah Forrest Kennedy, M. D., editor of the *Iowa Health Bulletin*, and Secretary of the Iowa Board of Health, has the following to say:

HONOR TO OUR STATE BOARD.—At the August meeting of the State Board of Medical Examiners that Body unanimously declined to join the State Board of Missouri, as Illinois has done, in its unwise attempt to compel all medical colleges to furnish, annually, "a complete list of all matriculates with the basis (educational) upon which each applicant matriculated, the list to be sworn to," et cetera. It evidently seemed to the fair-minded gentlemen of the Iowa Board that the general minimum requirements of the several State Boards, to which the colleges uniformly have acceded, were amply sufficient to promote thoroughness in teaching without the addition of such an enactment as that in question. I heartily agree with our State Board in its implied announcement that it interprets its mission to be: Simply to furnish outlines in its minimum requirements, leaving details to the managers of the schools, on whom that duty solely devolves; and above all to avoid tyrannical interference in such management with which it really has no business.

The Missouri pronunciamento has evoked a vigorous counter-buff from the Hahnemann Medical College of Philadelphia. This is an old, admirably housed, thoroughly equipped and influential school, which has been an earnest promoter of the higher medical education idea. The Faculty of

this school positively refuse to become the tenants-at-will of the Missouri Board; and singular as it may seem, they argue from the premise—medical colleges have rights which State Boards of Examiners are bound to respect. The rejoinder is being reprinted in the journals, and is couched in language direct, incisive and conclusive. Doubtless there are other schools the courage of whose convictions will prompt them to like response. Others will say nothing, and ignore the pronunciamento. Medical College Faculties, as a rule, are composed of honest, capable and painstaking men, who, so far as our State Boards' official connection with them is concerned, have sincerely and effectively seconded the general and successful movement in the direction of elevating the standard of medical education. Minimum requirements are now sufficiently stringent, and are generally conscientiously lived up to by the colleges. The Missouri demand is impertinently meddlesome. It implies doubt as to the honesty of the schools. It imposes upon them heavy burthens, and will provoke a general revolt, if I am not mistaken, pending which, the cause is likely to suffer. Obviously the Missouri Board has given hostages to self-conceit, and imagines that aggregation to be composed of budded Gamaliels. It does itself too much honor, and stands alone in its belief. The sooner that Board comes "to see itself as 'ithers see it" the better will it be for the cause in which we are all enlisted. "Let us have peace." SOLIPED.

Of course Soliped heartily agrees with the Iowa Board. He owes his position to that Board. Of course the Iowa State Board will "avoid tyrannical interference" with the medical schools—for are not several of the members of the Board connected with Iowa medical colleges? And has it not been shown to the satisfaction of everybody that some of the medical colleges of Iowa pad their matriculation lists, make a howling farce of their preliminary examinations, and graduate all who apply? Of course Iowa should refuse to join Missouri.

The trouble in Iowa is just this: There is only one school in that State which is supported otherwise than by fees paid by students, and the fees in all Iowa colleges are extremely low. Hence, almost all the other colleges in the State will publicly howl for higher medical education and privately accept the student deficient in preliminary education. We know of some of the medical colleges of Iowa which have made Doctors of Medicine out of boys who could not spell and write the English language. So long as medical college professors are members of the Iowa Board (under the present statute) there will be no true higher medical education in Iowa.

"The Missouri demand is impertinently meddlesome." Perhaps it is, but it counts nevertheless and no medical college in Iowa, or any other place on the map, which refuses to abide by Missouri's requirements will have its diplomas recognized by Missouri. This means that all outsiders who wish to practice upon helpless humanity within the bounds of old Missouri must pass an examination. This examination is so stringent, withal fair, that few succeed.

The Iowa Board should be abolished. It has accomplished little of good, either for the people or the profession. On all hands complaints are heard concerning its inefficiency and, if we mistake not, the signs of the times point to its abolishment. The cause of higher medical education can best be subserved in Iowa by passing a more stringent law, debarring medical college professors from the Iowa Board and in all things following Missouri's lead. Missouri now has an ideal medical law; and it has a Board of Health which will enforce that law. Dishonest medical colleges and erratic and reckless secretaries must go out of business in this State.

For years the Iowa profession has realized the inefficiency of the medical practice act. Quacks of all kinds infest the State and the Board is powerless. If a new medical practice act be passed by the next Iowa legislature, provision should be made to protect the profession from itinerants, advertising charlatans, Indian doctors, traveling mountebanks and all this ill-begotten brood. Over in Kentucky there is a medical law which works admirably to the exclusion of the illegitimate sons of Æsculapius.

To some the action of Missouri's Board may seem arbitrary. Nothing short of stringent action could deal with the condition. Desperate cases require drastic remedies. Here was a State containing enough medical schools to supply the Union; in the city of Saint Louis alone were more medical colleges than exist in New York and all New England. Competition between schools was fierce; all sorts of devices were employed to provide illiterate students with literary credentials; the classes were large; the output great, and everybody could see that the profession was going to destruction. This state of affairs was not limited to Saint Louis. The same condition obtained in Kansas City and St. Joseph, as well as in many cities in other States. The end has justified the means, and before many moons Iowa will gladly follow Illinois in joining hands with the great State of Missouri.

WHAT A MEDICAL STUDENT MUST BE.

It may be of interest to our readers to know what is expected of a student in the English schools of medicine. In this free and easy land, where medical colleges spring into existence between the setting and rising of the sun, we have until lately been entirely too lax about the qualifications of medical students. In the past the colleges have gathered into their halls all sorts of material, and too often the unwinnowed product has been turned loose with license to experiment upon the helpless public. In Missouri this state of things has been stopped.

The following clipping is from the educational number of the *Medical Press and Circular* of London:

In the first place a medical student must be a working man. Let him start with the conviction, gathered from the experience of those who have

preceded him, that a medical man's life is a hard-working one from the time of his student-days until the moment when the burden of this earthly existence ceases to be his lot. Of course, to a medical student there is no means of ascertaining beforehand what this hard work is, but there is all the experience, advice and counsel of many a medical man available to enable a young medico to learn something of what it consists. The first, then, essential quality required of a medical student is that of unlimited application. No sooner does he begin to enter upon his student life than he is confronted by this important fact. His powers, for example, in this respect, are taxed to the utmost when he comes to study the subject of anatomy. This may be his first solid introduction to an exact science, and such introduction, it may be pointed out, he is not likely ever to forget. What medical man is there who does not remember the first essay that he made to learn "the bones," and the course and relations, say, of the main arteries of the body? Thus, all the faculty of memory in the medical student is summoned at once to his aid when his study of anatomy begins. The stern, unalterable facts and details of anatomical description can only be acquired by the deliberate, painstaking, patient exercise of the memory. No effort of reasoning, no exercise of conjecture, no application of the science of deduction can avail in determining the course and relations, say, of a nerve. There is nothing save memory in such a case upon which to rely. The nerve has one distribution and course, and one only. The facts in connection therewith can only be learnt, and then committed to memory, and if the mind does not retain them they are lost to the student until he is again able to refer to the source of information from which he gathered them. Not so, of course, is it the case, to a large extent, in the treatment of disease. When the student advances to the more practical part of his work he will find that there may be two opinions concerning the best mode of treatment in regard to a surgical or medical case. That is to say, a surgeon may differ with a colleague as to the method of relieving a patient, and yet each authority may be right so far as the main object of treatment was concerned. However, in the first year of his student's life the young medico has nothing to do with these things. It is clear, then, that his best course, under the circumstances, is to cultivate a sound, vigorous, expansive memory, for he will soon begin to find that nothing will prove of so much use to him in the beginning of his labors.

DEATH'S HARVEST.

Within a few months the Saint Louis profession has lost three of its best members, viz., Doctors Elsworth Smith, Harry Hodgen and A. B. Shaw. All were valued members of the fraternity, and each one has left the record of an honorable life. The passing of these men should impress upon us the fact that life is short, that time is fleeting and that an honorable life is better than great riches. Peace to their ashes.

HISTORICAL SKETCH.

THE ANATOMICAL RENASCENCE,

By JAMES MOORES BALL, M. D., of St. Louis.

ITALY in the sixteenth century was the fount from which issued a ceaseless stream of anatomical discoveries. The ancient and illustrious universities of Bologna, Pavia, Padua, Pisa and Rome eclipsed the schools of Paris and Montpellier, of Toulouse and Salamanca, and the Italian Peninsula, which in early mediæval times had gloried in the skill of the physicians of Salerno, became a second time the medical center of Europe. Vesalius and Fallopius taught at Padua; the ancient fame of Bologna was supported by Arantius and Varolius; Vidius, returned from establishing the anatomical school at Paris, taught at Pisa; Eustachius was at Rome, Ingrassias at Naples, and the fame of the new anatomy spread throughout the world. The Italian cities were filled with students from foreign lands. Padua had more than one thousand new students every year, salaries were paid to her one hundred professors, and medicine was looked upon as a noble profession.

While the Italians were the leaders in progress, the Germans were still lecturing on Galen and Avicenna; the English had done almost nothing, and the College de France was not established until 1530. The organization of the medical faculty was entrusted to the Florentine, Vidus Vidius (Guido Guidi), who completed his task so rapidly that the wits of that day declare that *Vidus Vidius venit, videt, vicit.*

Legalized by imperial authority and sanctioned by the Church, dissection was no longer regarded as a crime. A bull by Pope Boniface VIII., issued in the year 1300, forbidding the evisceration of the dead and the boiling of their bodies to secure the bones for consecrated ground, as was done by the Crusaders, was wrongly interpreted as forbidding anatomical dissection. Two centuries later the Popes, standing in the vanguard of science, withdrew their interdictions, permitted dissections to be made in all the Italian medical schools, and paved the way for the Anatomical Renascence. This began with the imperfect labors of Mundinus, Berengarius Carpus, Rabelias, Sylvius and Winter of Andernach and ended with the advent of that glorious host of moderns led by Vesalius, Servetus, Columbus, Eustachius, Fallopius, Sarpi, Arantius, Cæsalpinus, Fabricius ab Aquapendente and Harvey. Under the scalpel and pen of Vesalius anatomy was revolutionized as completely as was theology by the preaching of Luther; surgery was guided into new paths by Ambrose Paré, and obstetrics, thanks to the labors of Eucharius Rhodion and Jacques Guillemeau, assumed its legitimate place among the medical sciences. Servetus, visionary and argumentative, proclaimed correctly the course of the pulmonary circulation and thus became the founder of modern physiology. The few rude cuts found in the book of Mundinus were soon succeeded by a wealth of anatomical illustration contributed by the ablest artists and engravers. The crude wood-cuts found in the early treatises on anatomy gave way to elaborate

xylographic engravings, and these were followed by beautiful figures upon copper-plate. The presses of Basel, Strasburg, Rome, Venice, Paris and Ausburg produced ponderous folios remarkable for typographical excellence. Everywhere men began to turn their attention to the structure of the human frame. A new era was born; the Anatomical Renascence was in its glory. The history of that movement now demands our attention.

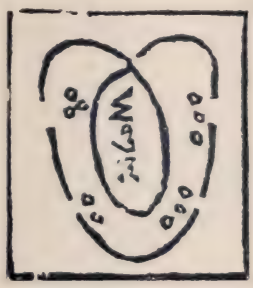
MONDINO DA LUZZI, the Restorer of Anatomy, 1276-1325.

In the year 1315, in the old Italian city of Bologna, there was inaugurated a procedure which marks an important era in the history of medicine. It was there that a wondering crowd of medical students witnessed the dissection of a human cadaver—the first event of the kind which had occurred since the fall of the Alexandrian School of Medicine. Acting under royal authority Mondino, a man far in advance of the age, placed the body of a female upon a table where for many cenutries before only the cadavera of apes, swine and monkeys had been studied. The early Christians denounced the cutting of a human body in fierce terms; the Koran forbade the touching of the dead; and everywhere men were content to learn human anatomy from comparative dissections. When Frederick II. of Naples, King of the Romans and the Two Sicilies, decreed that no one should practice surgery without having been examined in the "anatomy of the human body, without which one cannot perform any operation, nor direct the cure without having done," he removed the obstacles to human dissection. It is said that Martianus, a physician of Sicily, convinced Frederick of the wisdom of this course. In accordance with a royal decree physicians were required to be present at an anatomical demonstration which was to be held every five years. The first of these was that conducted by Mondino in 1315. The origin of the practice would seem to date farther back, since the Senate of Venice, in 1308, decreed that a human body should be dissected annually. In harmony with this, it is stated that William of Salicet, Guilielmo Variguana of Bologna and Henricus of Hermondavilla made dissections at an earlier date than Mondino. A certain Magister Ricardus, a surgeon and contemporary of Lanfranc, had written a work on anatomy. Nevertheless, the credit of popularizing the practice of human dissection belongs to Mondino.

Like the illustrious Homer, Mondino's nativity was claimed by several Italian cities. Florence, Bologna and Venice, calling eminent scholars to their aid, have proved their claims, each to its own satisfaction. Guy de Chauliac distinctly states that Mondino was a Bolognese. *Mundinus Bononiensis* is Chauliac's expression. Chauliac, writing in 1363, gives valuable information concerning the methods of the early anatomist "Mondinus of Bologna, who wrote on anatomy, and my master, Bertuccius, demonstrated it many times in this manner: The body having been placed on a table, he would make from it four readings; in the first the digestive organs were treated, because more prone to rapid decomposition; in the second, the organs of respiration; in the third, the organs of circulation; and in the fourth the extremities were treated" (*Guy de Chauliac, Anatom., Cap. 1, d. 1.*) The innovation so auspiciously begun was not continued, and after the death of Mondino the practice of human dissection was forgotten. Although a dissection was made at Prague in 1348, and

another at Montpellier in 1376, the practical study of human anatomy did not gain recognition until the sixteenth century. The depth of superstition in the fourteenth century may be appreciated by the fact that Mondino, fearful of burdening his soul with mortal sin, did not open the skull. The contemporary of Chaucer, Guy de Chauliac and John of Gaddesden, Mondino was the peer of any of the great men of his time.

Mondino prepared a treatise on anatomy, which for more than two hundred years was the only anatomical text-book. Small and imperfect as it was, it marks an era in the history of human anatomy. By command of the Italian authorities this book was read in all the Italian universities. The work of Mondino contained no new facts; it was compiled largely from the writings of Galen and Avicenna. The descriptions, to use the words of Professor Turner, "are corrupted by the barbarous leaven of the Arabian schools, and his Latin defaced by the exotic nomenclature of Ibn-Sina and Al-Rasi." Mondino divided the body into three cavities, of which the upper contains the animal members, the lower the natural members, and the middle the spiritual members. Many of his names are borrowed from the Arab writers. Thus, he calls the peritoneum *cyphac*; the omentum *zyrbi*, and the mesentery *eucharus*. His description of the heart is much nearer accuracy than would be expected. He resorted to vivisection, and tells us that when the recurrent nerves of the larynx are cut the animal's voice is lost. In his book we find the rudiments of phrenology. He states that the brain is divided into compartments, each of which holds one of the faculties of the intellect.



Mondino's Diagram of the Heart (1513).

Mondino did not himself make the dissections which are usually credited to him. The actual cutting was done by a barber who wielded a huge knife resembling a cleaver, while the professor of anatomy sat upon an elevated seat and discoursed concerning the parts. A demonstrator, who also did not condescend to soil his fingers, stood by the side of the barber and pointed out the different parts with a staff. A very early illustration showing the method of teaching anatomy in Mondino's time is that shown in the accompanying illustration, which is reduced in size from the original found in a book by *Joannes de Ketham* and entitled *Fasciculus Medicinæ*, published at Venice in 1493. This collection of medical treatises was first issued in Latin at Venice in 1491. This was followed by five other Latin editions, all of which are very valuable. None of them contained any illustrations. In 1493 an Italian translation was published with nine curious wood-cuts. This, however, was not the first edition of this old anatomical treatise, which was first printed at Pavia in 1478; four years later the Bologna edition appeared; in 1484, that of Padua; in 1495, 1498 and 1500, Venice; in 1505, Leipzick; 1507, Venice. Not less than thirty-three editions are recorded. My copy, printed at Strasburg (*Argentina*) in 1513, is an exemplar of the eleventh edition. It consists of forty pages in old Gothic type, ornamental initial letters and no paging. This copy has catch-words. The book contains two wood-cuts—one showing a diagram of the heart, while the other presents the signs of the Zodiac. The latter has been printed in two places: on the title page, and also as the colophon.

So numerous are the contractions in the book of Mondino, so barbarous his style, that the making of a translation is a difficult task. That which

Anatomical Demonstration (Joannes de Ketham, 1493).

is here presented was made by Dr. James E. Pilcher at the request of his friend, the late Dr. George Jackson Fisher, of Sing Sing, N. Y. It deals with the third *Lapis* or chapter.

The Third Chapter of the Anatomy of Mondino, on the Anatomy of the Myrach.

ON THE ANATOMY OF THE MYRACH.

CHAPTER III.

HERE you perceive more deeply-seated parts, some of them enclosing deeper parts, others being enclosed. The enclosing parts are together called the Mirach. The Mirach is composed of five parts, the skin, the fat, the panniculus carnosus, the muscles and their tendons, and the siphac.[1] Make an incision then with the knife, by drawing it from the shield[2] of the mouth of the stomach directly to the pectineal bone; by lightly incising the skin, it is seen that it is double; one part is the corium, so-called, which is external and can be restored if destroyed; the other is the true skin, which is white, immedialely subjacent and spermatic; on that account, if it is destroyed it cannot be renewed. Then, beginning at the umbilicus, you cut transversely by drawing from the right and left to the back. You will have then, first, the skin external, and next will appear the fat, more abundant in the hog than in man. After this is found the panniculus carnosus, which is not supplied with nerves like the others, nor is it as fleshy as muscle, but is composed of flesh and fascia commingled. Beneath this are the muscles with their tendons. ¶ The muscles are eight, as Galen says in the sixth book: On the functions of parts, in almost the last section. For there are two longitudinales,[3] the fibres of which run lengthwise from the shield of the mouth of the stomach to the pectineal bones; on that account they are called longitudinales; their tendons are not large but ligamentous. Immediately adjacent to these are the two transversales superiores,[4] one on the right and one on the left; both arise from the ribs just above and end in tendons along the pectineal bones; so the right tendon passes below to the left and the left to the right; and in an opposite direction to the superiores pass the inferiores;[5] which arise from the pectineal bones and the haunch and pass into tendons and terminate at a point where they are inserted into the ribs; their tendons thus cross reciprocally like the letter X. ¶ Finally, beneath these are the latitudinales,[6] the fibres of which pass transversely, one right and one left; their origin and situation is more toward the back and higher. They meet the longitudinales, crossing them at right angles. This is the number, quantity, position, composition, form and relations of these muscles. ¶ Their function is two-fold, general and special. The general is two-fold, principal and secondary. The principal is, constituting the substance of the mirachitself, to protect the internal organs from external violence and to ward off accidents from the parts within. The secondary function is to assist in the expulsion of those matters which are to be expelled from the body and to aid in the extrusion of the fœtus and fæces, since the mirach assists in the expulsion of these also, as Galen says in the same sixth book. The special function for which the longitudinales are adapted is that of retraction, and consequently for expulsion; as this act upon the intestines requires much force, these muscles are very large. The expulsion is accomplished by the contraction of their own fibres which, when contracted, compress the matters beneath them and so expel whatever may be there. The diaphragm also co-operates in the act, since, passing down behind, it is so related that the intestine and the matters which they contain are as if between two hands. When these muscles contract and recede toward the diaphragm, their contents are expressed, just as anything held between the hands is expelled by compressing them one against the other; all of which will be more fully discussed in connection with the anatomy of the diaphragm. Moreover, the latitudinales muscles are intended chiefly for expulsion and for that reason are placed in the closest relations with the intestines; they accomplish it by compression or whatever part is requisite to give a downward

Mirach composed of five parts.

Skin duplex.

Eight muscles of the belly.

Longitudinales.

Transversales.

Latitudinales muscles.

Function of the muscles.

The muscles act with aid of the diaphragm.

[1] Peritoneum.
[2] The sternum.
[3] Recti.
[4] Superior Oblique.
[5] Inferior Oblique.
[6] Transversalis.

movement. Hence it is that these muscles are placed rather above than below. But the transversales muscles are intended for retaining. The retention is effected by the transversales fibres, as appears in the third book: On the natural arrangements, that for retention it should be provided that the evacuations should not reascend to the location from which they had come, nor too rapidly descend, but be retained to perform the whole function. For that reason there were not only two superior transversales but two inferior. But as the function of retention demands rather that matters should not return upward than that they should not descend, the superior transversales are larger than the inferior. The diaphragm also contributes to this, as will be said hereafter.

At the period when Mondino began his dissections the epoch of Saracen learning had ended, but the influence of Arab medicine exerted by the writings of Albucasis, Avicenna and Rhazes had not yet declined. The Arabian physicians, however, had accomplished little for anatomy. In this line the influence of Galen was still potent and indeed was unquestioned until the publication of the *De Corporis Humani Fabrica* of Vesalius in 1543. During this period the little treatise of Mondino held full sway in the mediæval schools. Medicine was taught in the University of Bologna, which as early as the twelfth century was celebrated for its departments of literature and law. These studies were free of difficulties which beset medicine. The prejudice against dissection was so great that for nearly a century after his death no one dared to repeat the acts of Mondino. A large part of popular prejudice was due to a bull issued by Pope Boniface VIII., in the year 1300, which forbade the evisceration of the dead. The design of this edict was to abolish a custom in vogue among the Crusaders who, in order to inter in holy ground those who died in infidel lands, cut up

Mundini

Distinctio Nervorum

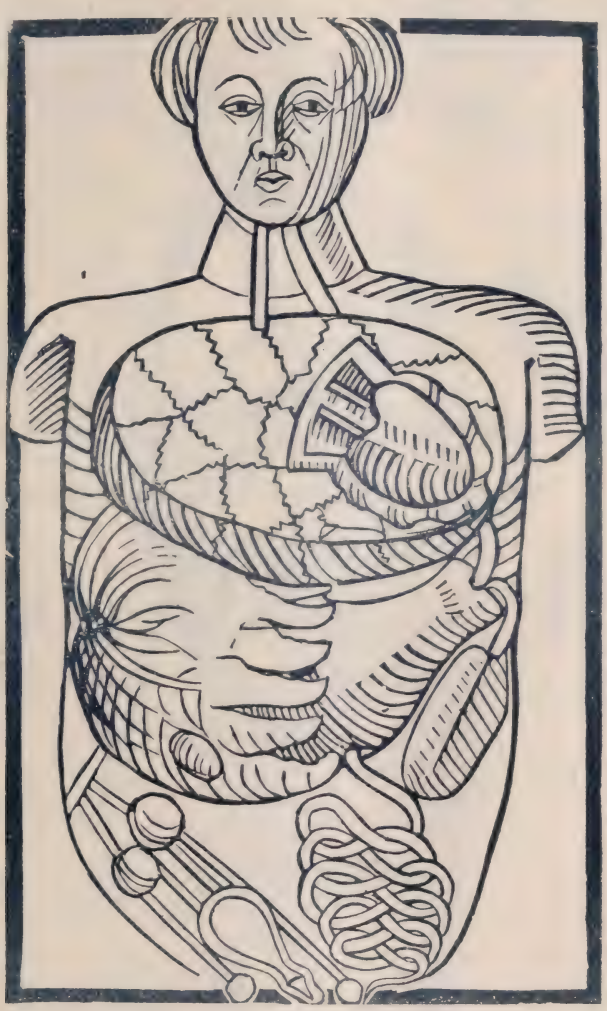
Nervi a cerebro. vij. paria — Nuche colli viij.
Nuche spondilij pectoris xij — Nuche alcharyn v
Nuche alhouyne ij — Nuche alhoſos ij
Et vnum impar.

Summa omnium nervorum xxxviij. Et vnus impar:

Impressit Argentine Martinus Flach
Anno domini. M.D. xij.

Colophon of the Anatomy of Mondino.

and boiled the bodies of their friends. This act, however, was interpreted to prohibit human dissection. Toward the close of the fifteenth and early in the sixteenth century the Popes consented to dissection, and the Italian universities entered upon a phenomenal era of medical advancement. At Pavia, Padua and Bologna dissections were made before the year 1500. In the year 1482 the University of Tübingen, acting under the authority of Pope Sixtus IV., taught practical anatomy.

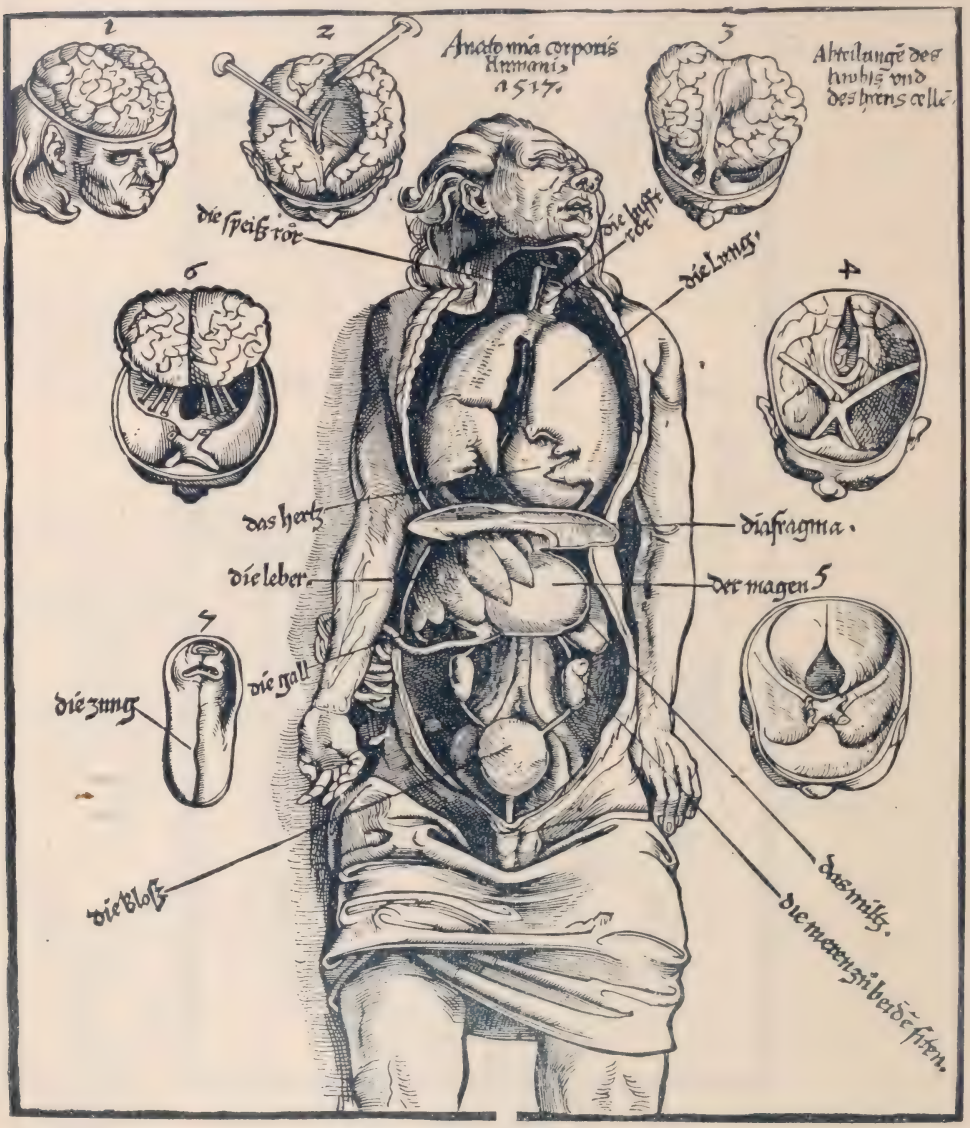


Anatomical Figure from Magnus Hundt (1501).

The first book on anatomy following Mondino's work was that written by **Gabriel de Zerbi** (1468–1505), of Verona, who taught in the University of Padua. He imitated Mondino in style, abbreviations and language. The book of Zerbi, however, contains some original observations. He first described the tubes which bear the name of Fallopius, the puncta lachrymalia of the eye and the lachrymal gland. From the fact

that he describes two lachrymal glands in each orbit, it is known that many of his dissections were made upon brutes.

Among the German anatomists of this period were Peyligk, of Leipzig, and Hundt, of Magdeburg. The former wrote a compendium of natural



Anatomical Figure from Laurentius Phryesen (1518).

philosophy, containing some anatomical illustrations. Far more important was the book of **Magnus Hundt** (1449–1519) which was published in the year 1501. It contained four large and several small woodcuts. They are among the earliest of anatomical illustrations, coarse, schematic and unnatural pictures. One of these, which in the original

book is entitled *Figura de situ viscerum*, is represented herewith. It shows the trachea on the right side of the neck, passing downward to the lungs; on the left side the œsophagus is represented. In the thorax are seen the lungs and heart; the latter resembles the figure of the heart as seen on old playing cards. The pericardium has been opened; the diaphragm is not shown; the stomach, intestines, etc., are crudely represented. Another book written by a German and containing anatomic illustrations was the *Spiegel der Artzny* of **Laurentius Phryesen** (Frisen or Fries), printed at Strasburg in 1518. These also were wood-cuts from drawings made by the artist Waechlin. One of these, slightly reduced in size, is seen in the accompanying illustration. All the parts exposed to view are lettered and numbered. A glance shows that the illustrations in the book of Phryesen are far superior to those found in the work of Hundt.

In accordance with the custom of the age many anatomists wrote commentaries upon the anatomy of Mondino. The first of these was penned by **Alexander Achillini** (1461–1525) of Bologna, who taught philosopy and medicine with such spirit that he was called the second Aristotle. His book: *In Mundini Anatomen Annotationes, Venetiis, 1522*, contained an account of many anatomical discoveries. He first described the malleus and incus, the Whartonian ducts of the submaxillary glands, the vermiform appendix, the labyrinth, patheticus and olfactory nerves, and knew more of the brain than any of his predecessors. In the main, however, he followed the leadership of Mondino.

[TO BE CONTINUED.]

THE TRI-STATE MEDICAL SOCIETY.

The Tri-State Medical Society of Iowa, Illinois and Missouri will meet in Saint Louis early in April, 1897. The President is Doctor A. H. Cordier, of Kansas City, and the Secretary, Doctor George W. Cale, 4403 Washington boulevard, Saint Louis. Doctor Cordier has recently returned from the East, where he secured promises from many eminent physicians to attend the Tri-State. Although a young Society, the Tri-State already counts its members by hundreds, and doubtless will continue to grow.

Chemical Laboratory at Champaign.—The Executive Committee of the Board of Trustees of the University of Illinois has decided to make temporary repairs to the amount of $10,000 on the chemical laboratory building, which was almost totally destroyed by fire recently.

New Internes. The following gentlemen are the new internes of the St. Louis City Hospital:

Drs. H. L. Hempelmann, J. E. Coleman, A. F. Henke, J. Dean, T. L. Bradley, H. L. Montague, E. J. Washington, C. L. Fahnestock, J. L. Meyer, J. C Calhoun, J. M. Blakemore, R. L. McElvoy, W. Baumgarten, W. E. Sauer, W. H. Pauley, J. O. F. Farrar, M. Weiner, P. Von Phul, W. Brokaw, and W. L. Schuchat. Six are from the Missouri Medical College, nine from the St. Louis, three from the Marion-Sims, one from the Barnes, and one from the American Medical College.

IN THE PROFESSIONAL EYE

DR. M. N. VOLDENG, the new editor of the Neurological Department of the JOURNAL, who has recently returned form a year's study abroad, is located at Des Moines, Ioa., and will limit his practice to diseases of the mind and nervous system, for which specialties he is now thoroughly qualified.

Dr. Voldeng was born in Decorah, Ioa., January 21, 1863. In 1883 he graduated as A. B. from Luther College, Decorah; commenced the study

DR. M. NELSON VOLDENG.

of medicine in 1884 under the preceptorship of E. P. Murdock, M. D., Chicago, Ill.; attended three winter and two spring courses of lectures at the College of Physicians and Surgeons, Chicago, and received his degree May 21, 1887; he also took a post-graduate course at the Post-Graduate Medical School of Chicago in 1889.

Dr. Voldeng practiced medicine in Chicago from June 1, 1887, until July 22 following, when he accepted the position of Third Assistant Physician of the Iowa Hospital for the Insane, at Independence. In July, 1890, he was elected Assistant Superintendent, which position he filled with

ability and rare success for a period of five years. Becoming more and more deeply interested in the study of mental and nervous diseases and wishing to more thoroughly fit himself in this line of work, he resigned his position at the hospital a little over a year ago and went abroad, visiting Berlin, Paris and London.

Dr. Voldeng was married September 19, 1895, to Sade W. Rosemond, of Independence, Ioa. His wife accompanied him on his trip abroad.

Dr. Voldeng is a member of the Iowa State Medical Association; of the Medico-Legal Society of New York; of the American Academy of Medicine; of the American Medico-Psychological Association; of the New Sydenham Society, London, Eng.; of the Cedar Valley Medical Society; and is medical examiner for Life and Accident Insurance Companies. He has recently been appointed Director of the Histological and Pathological Laboratories of the Iowa College of Physicians and Surgeons, Des Moines.

THERAPEUTIC NOTES.

By GEORGE FOY, F. R. C. S.,

Surgeon to the Whitworth Hospital, Drumcondra; Hon. Fellow to the Southern Surgical and Gynæcological Association, U. S. A.

DR. JOSE RAMON DE TORRES (*Gaceta Médica de Cadiz*) publishes the following prescriptions for the treatment of chronic bronchitis. Where there is much catarrh he gives pills or capsules.

Chronic Bronchitis.—

Terebine.....0.20 gramme
Codeia.....0.01 gramme
Mix. Send 80 such. One four times a day.

He then prescribes:

Eucalyptol.....0.20 gramme
In capsule. One four times a day.

To scrofulous patients he gives:

Guiaicol.....20 to 50 centigrammes

either in cod-liver oil or in capsules after each meal; when given in capsules, he gives cod-liver oil with each dose. He also gives tar and balsam of tolu in old standing cases, and sometimes adopts Dujardin-Beaumetz formula of tar and balsam of copaiba. With these he prescribes natural sulphur waters.

Monol.—Under the name monol (*El Siglo Médico*) Señor Bordas has introduced into therapeutics the permanganate of calcium. The salt crystallizes into beautiful needle-like forms, which are slightly deliquescent. The salt is decomposed by cold and by contact with organic substances.

As an antiseptic it is more powerful than perchloride of mercury, and has the great advantage of being neither poisonous nor caustic.

A solution of two grammes of the salt in a litre of water quickly destroyed specimens of the most virulent bacilli.

From experiments conducted with many cultivations of bacilli Señor Bordas concludes that the lime salt is five times more powerful than the potassium one.

Señor Lutand has substituted monol for the perchloride of mercury in the treatment of wounds.

Citrophenol.—Señor Treufel (*El Siglo Médico*) has experimented on four dogs with citrophenol, which has recently been introduced into medical practice as an antipyretic and anti-neuralgic. Doses of 30 grains to 45 grains given to a dog produced violent vomiting and well-marked albuminuria. The urine contained phenol and an abundance of blood corpuscles and tubecasts. On examination the gastro-intestinal and the genito-urinary tracts were found to be inflamed.

Experiments with the corresponding tartrate showed it to be a much milder salt.

From its toxic action the drug is unsuited for therapeutic use, or if used at all, the dose should be very small, and then gradually increased.

Coryza.—According to Dr. R. Wünsche (*El Siglo Médico*) a 10-percent. solution of menthol in chloroform aborts coryza. A few drops of the solution are to be rubbed lightly between the hands, which are then held to the patient's mouth and nose, who takes from four to six deep inhalations of the vapor. At first the tendency to sneeze ceases, then a free watery discharge flows from the nose, headache disappears and the patient is free from coryza. In troublesome cases the inhalations may require to be repeated.

Atonic Dyspepsia.—The following prescription is by Dr. Rankin:

Sulphate of iron	0.12 gramme
Papain (Finkler)	0.12 gramme
Extract of cannab. ind	0.15 gramme
Extract of nux vom	0.15 gramme
Extract of rhubarb	0.03 gramme

Mix and make a pill. To be taken after each meal.

Alveolar Periostitis.—Dr. Rédier recommends the following in acute alveolar periostitis:

Phenazonum	2 grammes
Salicylate of soda	2 grammes
Gum water	120 grammes
Syrup of morphia	10 grammes

To be divided into four draughts, one of which is to be given every six hours.—*Medical Press and Circular.*

For Chlorosis—

Manganese and iron lactate (Merck)	96 grains.
Oxalic acid, C. P.	4 grains.
Strychnine sulphate	1 grain.
Compound extract of colocynth	16 grains.

Mix. Make 32 capsules.

DOSE.—One capsule two hours after each meal.

In some few cases nothing does so much good as arsenic; a favorite combination is *manganese arsenate* in doses of $\frac{1}{10}$ grain, three times a day, after meals.—*Philadelphia Polyclinic.*

The Student's Medical Dictionary. Including all the words and phrases generally used in medicine with their proper pronunciation and definitions, based on recent medical literature. By GEORGE M. GOULD, A. M., M. D. Tenth edition, rewritten and enlarged. Octavo, pp. 701. Philadelphia: P. Blakiston, Son & Co. 1896.

The medical student at the very outset of his career finds a medical dictionary indispensable and as long as he practices his profession, or takes any interest in its literature, a good dictionary is a *sine qua non*. The huge medical dictionaries, of which this country has produced many, are useless to the beginner. The student needs plain, concise definitions, and all in one volume, not too bulky. Such a one is Gould's Student's Dictionary of which the tenth edition has just been placed on the market by that reliable publishing house, Messrs. P. Blakiston, Son & Co., of 1012 Walnut street, Philadelphia. The book is cheap at $3.25. We predict that Gould's Student's Dictionary will long be a favorite with American students.

The Illustrator. A monthly magazine devoted to literature and art. Published by the Illustrator Company, 103 North Prior street, Atlanta, Ga.

Artistic in its make-up, with the highest literary standards, and in every respect a first-class publication, the *Illustrator* is the representative magazine of the South. It deserves immediate success, and we hope its dreams will be realized. The South should support this venture with liberality, and many subscribers will doubtless be obtained in every State.

The Ready-Reference Handbook of Diseases of the Skin. By GEORGE THOMAS JACKSON, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the University of Vermont. New [2d] edition. In one 12mo. volume of 589 pages, with 69 illustrations and a colored plate. Cloth, $2.75. Philadelphia, Lea Bros. & Co., 1869.

A second edition of this book having been called for is good evidence of its value. The work has been entirely rewritten and new sections have been added upon Acraruegaly, Actinomycosis, Angioma Serpifinosum, Baelzer's Disease, Cheilitis Glandularis, Clavus Syphilitica, Dermatitis Repens, and several other subjects. Many valuable formulæ are found in ts pages. The book is an excellent one for the medical student and general practitioner.

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,
Professor of Legal Medicine in Barnes Medical College,
ST. LOUIS, MO.

CHAPTER XII.

IMPOTENCY AND STERILTY.

Question.—What is impotency?

Answer.—Inability to copulate.

Question.—What is sterility?

Answer.—Inability to procreate children.

Question.—How are the causes of impotency in the male classified?

Answer.—1. Mental causes (see Chapter on Psycopathia Sexualis).

2. Physical causes.

Question.—What are the most important physical causes?

Answer.—1. Extremes of age.

2. Opium, alcoholic and tobacco habits.

3. Exhaustion from excessive venery or masturbation.

4. Concussion of spine or brain, paralyzing the erectile centers.

5. Diseases of the nervous system:

a. General paralysis, either sensory or motor.

b. Paraplegia or Hemiplegia.

c. Diseases of the nutritive centers causing atrophy.

d. General nervous exhaustion from overwork.

e. Neurasthenia.

f. Deposit of syphilitic gummata.

6. Exhaustion from general wasting disease:

a. Acute fevers.

b. Diabetes.

c. Tuberculosis.

7. Reflex disturbances from other local diseases:

a. Perineal fistula.

b. Hemorrhoids and anal fissure.

c. Prostatic inflammation and hypertrophy.

d. Cystitis, particularly of neck of bladder.

e. Atrophic kidney.

8. Causes relating to the penis, locally:

a. Absence of penis, congenital or acquired.

b. Small, undeveloped penis.

c. Large penis, disproportionate to the size of an ordinary vagina.

d. Large veins on dorsum of penis, interfering with the retention of blood in erection.

e. Adhesion of penis to scrotum or abdominal wall.

f. Bad hypospadias or epispadias.

g. Injury to corpora cavernosa, as sometimes occurs from a broken cordee. In this case the posterior portion of the penis is erectile, while the distal portion is flaccid.

h. Double or bifid penis.

i. Stricture of urethra, both from reflex irritation it causes and from the stricture on erection, forming a dam, preventing the repulsion of seminal fluid.

j. Twisting of penis on erection.

k. Cancer of penis, both by destruction of penile tissue and by the excessive pain it causes on erection.

l. Gonorrhea, acute, on account of the pain it causes, and chronic, on account of the irritation and exhaustion due to the long discharge.

m. Large chancroidal ulcers, on account of severe pain.

9. Causes relating to the testicles locally acquired:

a. Absence of testicles either congenital or occasionally.

b. Crypsorchidism or monarchidism.

c. Cancer of testicle.

d. Orchitis.

e. Epididymitis.

f. Atrophy of testicle.

g. Small undeveloped testicle.

h. Tumors of the testicle, either tubercular or syphilitic.

i. Varicocele.

j. Hydrocele.

k. Large scrotal hernia.

l. The atrophic effect of mumps.

10. The effect of certain drugs, such as bromides, iodides, lead, camphor, nitre, coffee, etc.

Question.—What are the important causes of impotency in the female?

1. Absence of vagina.

2. Double vagina.

3. Obliteration of vagina by inflammatory adhesions.

4. Imperforated hymen.

5. Small, shallow, undeveloped vagina.

6. Inversion of uterus.

7. Procedentia of the uterus.

8. Vaginal tumors.

9. Ulceration of vagina, causing pain.

10. Hemorrhoids and anal fissure, causing pain.

11. Urethritis and cystitis, causing pain.

12. Large tumors of labia.

13. Disease known as vaginismus, causing spasm. This is often a sympton of a small mucous curruncle extremely painful to touch.

Question.—What are the important causes of sterility in the male?

Answer.—1. Causes which prevent the elaboration of living, healthy spermatozoa:

a. Extremes of age.

b. Absence of testicles from castration or otherwise.

c. Undeveloped testicles.

d. Atrophy of testicle.

e. Orchitis.

f. Mumps.

g. Cancerous, tubercular and syphilitic disease of testicle.

2. Causes which prevent the discharge of seminal fluid:

a. Gonorrheal epididymitis.

b. Syphilitic epididymitis.

c. Tubercular epididymitis.

d. Traumatic destruction and closure of tubes resulting from a blow.

e. Atrophy of the tubes from the pressure of a long-standing variocele.

f. Closure of the tubes from cancerous or sarcomatous deposit.

g. Stricture of the urethra.

h. Obliteration of seminal vesicles by inflammation.

i. Hypospadias and epispadias, the seminal fluid being deposited outside the vagina.

3. Causes which temporarily arrest the production of spermatozoa and the seminal fluid:

a. Exhaustion from excessive venery or masturbation.

b. Exhaustion from long continued wasting disease.

4. Occasionally a man and woman are found who are sterile with each other, but abundantly fruitful with other companions.

Question.—What are the important causes of sterility in the female?

Answer.—1. Causes which prevent ovulation:

a. Absences of ovaries, either congenital or acquired.

b. Cystic, cancerous, tubercular, syphilitic and inflammatory disease of the ovary.

c. Inflammatory disease of the peritoneum around the ovary.

d. Undeveloped ovaries.

e. Extremes of age.

2. Causes which tend to destroy the spermatozoa:

a. Continuous hemorrhage from diseased tissue inside the uterus and tubes.

b. Continuous acid discharges from the vagina, which coagulate the seminal fluid.

c. Continuous viscid discharges from the cervix.

3. Causes which prevent the passage of the spermatozoa up to where they can come in contact with the ovum:

a. Flections and versions of the uterus.

b. Inversion of the uterus.

c. Contracted cervex.

d. Non-junction of uterus with vagina.

e. Uterine and vaginal tumors.

f. Cicatrical folds from previous inflammation of vagina.

g. Rupture of the perineum, subsequent to child-birth, allowing the seminal fluid to flow backward out of the vagina after intercourse.

4. Causes which obstruct the passage of the ovum downward through the tube:

a. Malposition of the ovary.

b. Binding down of the fimbria of the Fallopian tube by inflammatory adhesion.

c. Obstructive disease of the tube itself.

5. Causes which temporarily arrest ovulation:

a. Exhaustion from excessive venery or masturbation.

b. Exhaustion from wasting disease.

Question.—What questions must be considered in making an examination of a case of suspected impotency or sterility?

Answer.—1. Does either impotency or sterility exist?

2. What is the cause?

3. Is the case curable?

4. From what time does it date approximately?

Question.—What is the legal importance of impotency and sterility?

Answer.—1. Impotency forms a legal bar to marriage.

2. Both impotency and sterility may be alleged as a reason for a divorce.

3. Impotency in order to affect the marriage contract must have existed previous to marriage and unknown to plaintiff.

4. Impotency may be alleged as a defense to a suit for affiliation of an illegitimate child.

5. Impotency may be alleged as a defense to an action of rape.

Question.—What points are of medico-legal importance in connection with the subject of impotency and sterility?

Answer.—1. Sterility may exist without impotency in either male or female.

2. Theoretically, a person may be impotent without being sterile at the same time, but practically an impotent person is almost invariably childless on account of non-intercourse.

3. In cases of precocious development a boy may become potent at a very early age, so that no opinion should be given in any case without examination. The same is true at the other extreme of life.

4. In making an examination it is sufficient to ascertain if any visible cause be present to render a person impotent or sterile. Any manipulation for the purpose of stimulating erection would be decidedly out of place.

5. The law cannot compel any person to submit to examination, though in case they do not submit the fact may be used in prejudice against their side of the case.

6. The law does not take cognizance of impotency due to mental causes purely.

7. It is the custom among lawyers to apply the term impotency to men solely, and the term sterility to women, though as a fact both conditions appear in either sex.

8. Hermaphrodites and sexually malformed people are nearly all sterile, though potency may exist.

9. Castration always renders a woman sterile.

10. Castration generally renders a man impotent and always sterile, but the sterility may not follow the operation immediately, for there may be a supply of seminal fluid, yet remaining in vesiculæ seminales.

11. Occasionally, when castration takes place after puberty, impotency may not follow for many years.

12. If in the castration of either a male or a female, of a portion of an ovary or testicle, it would be impossible to assert positive and absolute sterility.

13. While, as a rule, decrease of general strength, as in wasting disease, is accompanied with a corresponding loss of sexual power, this is not always the case, for in the last stages of tuberculosis men have had sufficient power to beget children perhaps a few hours before death.

14. The majority of crypsorchide are sterile, though they are occasionally fruitful.

15. Where castration takes place in youth the effect is about the same as though the testicles were congenitally absent.

16. It is not warranted to declare a woman fruitful because a periodic bloody discharge exists, providing she has passed the usual age for bearing children. This bloody discharge may come from diseased tissue inside the uterus, and not be the result of ovulation at all.

17. Impotency due to the advanced age of the man forms no bar to marriage or excuse for divorce. For the legal presumption is that the procreative function does not disappear with age, but as a matter of fact it does disappear in nearly all cases.

18. It is a fact that where sexual potency is retained to a great age that mental and bodily vigor are also retained.

19. A very small penis is not a proof of sterility in men of complete impotency, for in these cases some degree of penetration may take place.

20. The sterility of a female is demonstrable as also is her fertility, while that of the male can only be determined problematically for "It is a wise son that knoweth his own father."

CORRESPONDENCE.

THERE ARE COLLEGES AND COLLEGES.

The September number of the much-esteemed TRI-STATE MEDICAL JOURNAL contains among its editorials one which is entitled a "Reply to Dr. Loftus." The article alludes to some views of mine respecting medical colleges, as given expression to in the *Republic*, while that paper was interesting itself in the medical college question which had been stirred up. The "reply" does not deal with any particular statement of mine

regarding colleges, but is mainly devoted to the extinguishment of myself.

I have said substantially the same thing publicly on two other occasions besides the one the JOURNAL complains of. In March, 1893, I read a paper before the St. Louis Medical Society, entitled "Medical Ills," wherein I said as much or more; and again in the *Medical Review* of August, 1895. So far as I know, no one else here has given expression to similar views, but in a recent number of the *Journal of the American Medical Association* there is a paper which was read before the Atlanta meeting of the American Medical Association by Dr. Douglas H. Stewart, of New York City, which makes my alleged "diatribe" appear as milk and water.

Dr. Stewart's savage onslaught is mainly devoted to a portrayal of the iniquities of the free college clinics; saying, among scores of equally true expressions, that medical colleges induced all of that class of people who formerly were the chief dependence of young doctors to come to the college clinics and be treated without cost; that colleges were accomplishing the pauperization of vast numbers of people in cities and also reached out into the country for other victims. He spoke of a certain locality in New York which was once fair, but a medical college has been established in it and as a consequence the good people were either exterminated or changed into the most vicious and depraved of the human species; and further boldly asserted that the medical college had become a more potent agency than the saloon in pauperizing and otherwise degrading the human family.

Besides the demoralizing effects of free clinics, Dr. Stewart adverted to the college faculty's smiles before graduation and its frowns afterwards. He alleges that a system of extortion, little better than robbery, is practiced upon students after regular fees are paid, and that duplicity is one of the distinguishing features of college management. All of this and much more of the same character did Dr. Douglas H. Stewart say to the leading college professors of the land while assembled at Atlanta; he not only said this, but substantiated it with evidence which, so far as the writer has been able to ascertain, has never been controverted, infamous as the charges are, but as the matter now rests it is the facts which are infamous.

I now kindly ask the editor of the TRI-STATE JOURNAL: If the perusal of my mild opinions has caused the smiling placidity which usually rests upon the editorial brow to be replaced by the dark frown and savage smile of a Tribune while censorious personal animadversions flowed from the point of his pen, how would it be possible to recover the fragments of his judicial body after even a momentary contemplation of the performances of Dr. Douglas Stewart?

Medical colleges which would aim only to supply the requirements of the profession and be subservient to the profession in all things would be national blessings; but colleges which have no regard for the profession and have money for their beginning, money for their end, and have sordid motives towering high above every other consideration in their management are a foul blot on this fair land of ours; a putrid aggregation poisoning all that is good in a glorious calling and a baleful black and withering curse to their helpless progeny.

4565 Easton avenue. W. V. LOFTUS.

PRACTICAL POINTS.

By Ben. H. Brodnax, M. D., of Brodnax, La.,

"THE hemoglobinuria of malaria is always acute, sometimes benign but generally pernicious and fulminant. The treatment is simply the subcutaneous use of quinine. If the hemoglobinuria persists after quinine is given it is due to nephritis set up by the congestion and toxins, and the patient may tardily succumb to an attack of uremia."

The above is taken from the *Medical Review*, St. Louis, May 23d, p. 373—"Translations" from an article by M. Plicque in *La Presse Medicale*.

So much has been said and written about this trouble, and really the cause of it is still under trial, that it almost to me seems out of place to comment on it. What I have to say is on a somewhat new line. At a recent meeting of our "Morehouse Medical Society" the question was asked by the President: "Would, in the opinion of the Society, quinine cause hæmaturia?" The opinion expressed by nearly every member was that "unless the *bowels had been freely moved* by calomel and the liver relieved that it *would cause it.*" Dr. A. W. Jones, of Jones, La., brought up the instance of a member of a family, related to him, whose son *could not take quinine at all* without its occurring. This writer knew a mother and two sons afflicted the same. Resort was compulsory to strychnia, arsenic and iron in place of quinine in their treatment. Nearly every one present had had cases similar. But the unanimous voice of the Society was that unless the bowels were first relieved hæmorrhage would certainly follow in 50 per cent. of the cases.

Dr. Wm. E. Jones, of our parish, recently published an article in the *Medical World* (which was in part copied in the *Cincinnati Medical Journal* of August) explicitly affirming the above—at same time condemning the use of quinine, after the hæmorrhage had occurred, as a chilifuge. That quinine is not suited to all cases in treatment of malaria goes without saying. That it is unsafe to use before the constipation and congestion is relieved is also a fact. The question would naturally come up, then: What will take its place in the treatment of hæmaturia? The authority quoted at head of this writing says: "Quinine hypodermically—if that does not cure there is inflammation of the kidney, which may result in death." He gives nothing, his patients die. The consensus of opinion, so far as it comes under my notice, is that the quinine in a majority of cases is a poison, is safe in only a few. Dr. W. E. Jones, aforesaid, uses hyposulphate of soda, and hypodermic injection, morphine and atropia, with turpentine and spirits by mouth. Dr. Cyrus Edson, of New York, gives quinine as a tonic *between the paroxysms* of the attack and very highly recommends "ammonal" as a safe and sure preventive of the return of the chill, giving in addition as a tonic iron in solution. Dr. Eccles in the *Charlotte Medical Journal* sizes up "ammonal" as follows:

Acetanilide	6 parts
Sodium bicarb	3 parts
Ammonium bicarb	1½ parts=to 10½ parts.

The dose as an abortant of congestive stage and chill is 5 to 15 grains as to age, which is about 3 grains and 9½ grains, respectively, of acetanilide. The ammoniate of valerian (?) has also been spoken of as an abortant. For years the physician, knowing the danger attending the use of quinine, not alone by producing hæmaturia, but in various untoward effects on the nerves of taste, sight, hearing, has been looking about for some substitute for the drug. Several years ago I studied out the physiological effects of acetanilide and applied it to the prevention of the return of the chills and with *absolute success*. In some five or six cases there was some mild cyanosis which was checked, in a few minutes, by the use of a stimulant such as whiskey, camphor, coffee, strychnia, and I now believe that with a solution made as follows, the formulæ for which I am indebted to Dr. A. W. Jones, of Jones, La., is absolutely safe and will in ninety-nine times out of a hundred abort chills and fever and bring on a sweat in from ten to fifteen minutes.

Acetanilide	45 grains
Doedorized tr. of opium	10 drops
Tincture or fl. ex. digitalis	5 to 10 drops
Alcohol or spirits-nitre	1 ounce

Mix. 5 to 50 drops as to age, for the infant mixture is made with *tr.* of digitalis.

This mixture gives about 5 grains of acetanilide to the dose for adult. This (5 to 7 grains) amount has been the maximum dose that for five or six years or more I have used as a preventive or abortant of the chill stage with result of aborting the whole. It is, of course, known that the return of the chill after hæmorrhage is to be dreaded. This, with the previous congestion and rupture of blood-vessels in kidney causes a fresh breaking of the partly healed wounds and not unfrequently pus will be found as a sediment in the gloss from the urine. Contrary to the teaching of M. Plicque those who have treated the hæmorrhage from kindeys *drop instantly quinine in any form*, and resort is had to *anything else under heaven*. Turpentine, nitre, arsenic, strychnia, nitro-muriate of iron, chloroform, nitro-glycerine, by mouth, calomel and podophylin, salts, enemas—anything that will deplete and empty the bowels. The remarks of Dr. W. E. Jones previously mentioned in the May, 1896, *Medical World*, Philadelphia, Pa., are worth their weight in gold to the doctor who has, or may have, cases likely to occur of this trouble in his practice.

I cannot too forcibly enjoin on the brethren the use of acetanilide in 5- to 7-grain doses braced, if any fear of cyanosis, with $\frac{1}{120}$ or $\frac{1}{60}$ grain strychnia or same of nitro-glycerine (glonoin) or ¼ grain caffeine. One dose of the acetanilide one-half hour before return time of chill brings on a sweat and sleep with the whole matter aborted. Of course the liver and intestines must be cleaned out and acid-iron tonic (nitro-muriatic acid, 2 ounces, sulphate of iron, 160 grains, mix, let digest 24 hours; 10 drops in 3 or 4 ounces sweetened water as much as desired) between times.

With this treatment there need be *no fear of any malarial hæmaturia* and no return of the chills. Since I have stopped the use of quinine I have had no cases of hæmaturia in my practice, while previously two to four or more cases were common every season, deaths about 20 per cent. In our parish the less general use of quinine after the hæmorrhage, and more care to see that the liver and bowels are put in order, has reduced very much the heavy average of twenty to forty years ago. Also I am satisfied from per-

sonal experience, having had hæmorrhage from the bladder twice in the last twenty-five years, brought on by quinine, that there should be more general use of acetanilide as recommended by myself after several years of constant use. By the relegation of quinine to the *second place* as a tonic, as by Dr. Cyrus Edson recommended, as well as by his endorsement of the acetanilide treatment in "ammonal," malarial hæmaturia will be soon one of the forgotten maladies and chills and fever as easily, pleasantly and safely managed as an ordinary summer diarrhea.

Thyreoid Therapy.—Dr. James B. Herrick, of Chicago (*Medicine*, 2, 8), arrives at the following conclusions:

In this brief review of thyreoid therapy I have not aimed to present an array of authorities or of statistics. I have merely tried to present the conclusions one feels justified in drawing from a study of the work already done in the line of the employment of this remedial agent in various diseases. From such a study it seems to me that one may reach the following conclusions concerning thyreoid extract:

1. It is curative in myxedema (idiopathic, cretinism, operative).
2. Many cases of obesity are cured by it.
3. Simple hyperplastic struma, particularly if in the young, is frequently cured or improved.
4. In 1, 2 and 3 the remedy has to be continued for an indefinite time, to prevent relapse.
5. It may prove of value in some cases of tetany.
6. In skin diseases it is of doubtful value, to say the least.
7. The same is true of mental and nervous diseases.
8. In exophthalmic goitre it is contra-indicated.
9. The results are practically the same whether fresh glands, extracts or dried glands are employed.
10. This is probably true also of the thyro-iodine of Baumann.

Dr. Borck's Reminiscences.—In our next issue we will begin the publication of a series of extremely interesting articles dealing with subjects of special interest to the St. Louis profession. Doctor Edward Borck, the well-known surgeon, has had a long and varied experience with patients and professional brothers, and we are sure he will have something of value to present to every doctor, young and old. Among many interesting subjects we note this: "Memories of the College for Medical Practitioners." This was the first post-graduate medical school in America. Many gentlemen are now living who were connected with that college. New subscribers to the JOURNAL will find that during 1897 they will get all their money calls for and much more.

A Dead Journal.—The *Peoria Medical Record*, we are sorry to say, has suspended publication. The old saw about the good dying young was true in the case of the *Record*. It was a good journal, filled with valuable and interesting reading matter, and was far superior in literary merit to many of the so-called medical journals of the day. Too often journalism is used as a cloak to boom an inferior medical college into prominence; or as a disguise by which job-printers and non-professional persons rob advertisers.

Notice.—We desire to call the attention of our readers to the letter of Doctor Loftus which appears elsewhere in this issue. THE TRI-STATE MEDICAL JOURNAL believes in fair play and gives a hearing to any and all, whether their views are ours or not.

PUBLISHER'S DESK.

About eight weeks since I was called to see a patient of Dr. L——'s. We found her with excruciating pains in the hepatic region, constant vomiting, with distress in the stomach; in fact, could keep nothing down for a couple of days. Enlarged liver, easily felt below the costal margin; very sensitive, so much so that we strongly suspected malignant disease. The symptoms were discouraging decidedly, as the doctor had given her nearly every medicine used in hepatic disease without relief. I suggested "Peacock's chionia." It was given and she began to improve and at this date is as well as usual. It certainly was an efficient remedy in her case and the result deserves recording.

Battle Creek, Mich. F. W. BACKRITH, M. D.

Peroxide of Hydrogen. The eleventh edition of CHARLES MARCHAND'S valuable book on the therapeutical applications of peroxide of hydrogen (medicinal) glycozone, hydrozone, and eye-balsam is now being circulated. It also contains many opinions of the medical profession and the use of these preparations in treatment of diseases caused by germs, bacteria, microbes, etc. The book will be sent free of all charges to any physician who may write for same to CHARLES MARCHAND, 28 Prince street, New York.

A Chance to Visit Mexico.—All persons desiring to go sight-seeing in our sister Republic will soon have an excellent opportunity to do so at a very moderate expense. The Pan-American Medical Congress will meet in the city of Mexico, November 16-19, 1896, and the Cotton Belt Route will sell round-trip tickets for one fare. Tickets will be sold November 7 and 10, 1896, good for return until December 31, 1896. For $5.75 additional tickets will be issued going one route and returning via another, thus giving a fine opportunity to see the best that Mexico has to offer. Ample stopovers will be allowed in the Republic of Mexico. No one can afford to miss such an opportunity. For full information address, J. E. Davenport, 505 Olive street, or E. W. La Baume, General Passenger and Ticket Agent, Equitable Building.

The Betz Bath.—Dr. J. A. Campbell, of Chicago, has been using the "Betz" Medicated Vapor Bath in his practice for some time, and writes of it to Frank S. Betz & Co. as follows: "Regarding the use of your baths I desire to say that so far they have proved very satisfactory. The first case was one of articular rheumatism, a very severe case, the patient a young lady, being unable to use her hands at all, and it was with difficulty she could walk. After the fourth bath she could take them unassisted, and after two weeks' use she walks without pain and has regained the full use of her hands. In this case I regard it as a complete triumph for your baths. I have also used it in a case of delayed menstruation and imperfect circulation with the most pleasing results. I consider your bath a great boon to suffering humanity and a reputation-maker for the physician who will use it in cases of rheumatism, lumbago, liver and kidney troubles, imperfect circulation and delayed or painful menstruation. I was very sceptical about the results, but have proven it to be the best thing I have ever tried in the cases above mentioned."

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Oak Lawn Retreat, Jacksonville, Ill.

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CLINICAL LECTURE.

ABDOMINAL PAIN,

By F. Byron Robinson, M. D., of Chicago,

Professor of Gynæcology in the Post Graduate School.

[Concluded from October Issue.]

THE SUBJECT of *unconscious abdominal pain* may sound like a misnomer, as it might be more appropriately termed abdominal *irritation*. I have seen irritation wreck health which was occasionally felt or not felt, according to the degree of irritation. If the irritation was gross enough it was called pain, if not it was compelled to rest, rather uncomfortably, however, under the term irritation. One of the best examples of unconscious or partially unconscious pain is uterine prolapse. The levator ani is continually trying to support the prolapsing uterus. The attempt is continued until it wears out the nervous balance of the patient. She becomes irritable and nervous, she does not sleep well, she has indigestion. This irritation or pain is partly perceived by the patient and partly not. Another good sample is fissure in the anus. Part of the pain is recognizant and some is not, but the irritable levator ani is kept on undue tension. Such patients become tired and neurasthenic from long conscious or unconscious irritability of the levator ani. The levator ani is attempting to work day and night without sufficient rest. Another kind of abdominal irritation or

pain arises from abdominal tumors. The irritation of the tumor on the peritoneal nerves goes on day and night. The pain or irritation is not recognized until the woman's health is ruined. She had subjective sensations but did not heed sufficient to consult a specialist. The irritation from the tumor, painful or painless, is transmitted to the abdominal brain where it is emitted to every viscus over its own plexus. The final result is visceral disease. The irritation or pain passes to the heart and produces in time hypertrophy and fatty degeneration. It produces irregular breathing. It produces hypertrophy and fatty degeneration of the liver. Occasionally this irritation is distinctly painful, but most of the time it is not recognized or felt. The irritation or pain from the tumor is sent to the abdominal brain and reorganized and sent out to all the digestive tract, with the result of colic, paralysis, excessive, deficient or disproportionate secretion, all resulting in diarrhœa, constipation or fermentation and ending in indigestion. There are reflex pains or reflex irritation. The reflex pains of pregnancy amount to vomiting. So that it is easy to see that irritation goes on unrecognized even by the patient and if the irritation be increased it is then recognized as pain, *i. e.*, conscious pain. Tumors produce kidney disease by reflex irritation. It may be said that the body suffers from irritation in destruction of health, whether it be felt or not, or rather whether the patient is conscious of it or not. All these kinds of cases I have had in my own practice. In order to be more concrete in speaking of abdominal pain let us take, for example, the pain accompanying appendicitis. Sometimes the patient complains of the pain at the appendix, at other times it is referred to the umbilicus.

When it is complained of as existing around the umbilicus it is a reflex pain, carried to the abdominal brain over the superior mesenteric plexus, where it is felt by the patient. When it is very manifest in the right iliac fossa it is because the inflammatory process has encroached on the lumbar (spinal) nerves which supply muscles and tissue in the iliac fossa. Often, however, the mass of exudate or pus presses on the lumbar plexus and causes the pain. Occasionally the patient vomits. That is wholly reflex, the irritation traveling to the abdominal brain over the superior mesenteric plexus, where it is reorganized and emitted on to the stomach over the several gastric plexuses. But the abdominal brain emits the reorganized irritation out on all the viscera, and we have constipation, diarrhœa or tympanitis, according to the kind and degree of irritation. Notice peculiarities of results of this irritation. If pus be freely floating in the peritoneal cavity there is no bowel distention generally. Free peritoneal pus generally does not accompany tympanitis. In such case the pain may be slight. But in other cases where the irritation and pus are strictly localized we frequently get tympanitis of a severe character. This tympanitis is produced by reflex forces, which partially paralyze the gut-

wall and the developing gases expand the gut-lumen. The reflex arc is always by way of the abdominal brain. Free pus floating in the abdominal cavity seems to so paralyze Meissner's plexus that digestive secretions are diminished so much that all fermentation is held in abeyance. But some single distant point of irritation or pain induces the most marked tympanitis as, *e. g.*, volvulus. The point of painful irritation must be only of a relatively moderate character. There is also a kind of "colic" pain in appendicitis, which has not been discussed by many writers. It is an agonizing pain. A conscious feature accompanying this pain is tympanitis, but especially constipation. I think the explanation of this pain is that it is *appendicular colic.* It is an attempt of the appendix to expel the foreign body and no doubt it often succeeds, and the patient suddenly recovers. The appendicular colic is similar to tubal colic, which I have noticed would occasionally last from one to three hours after a vaginal examination. The tubes were stirred up to acute peristalsis, which causes very bad colic or pain. Then the pain is appendicular colic or appendicular peristalsis, acute muscular contraction of the appendix. Now, the constipation which so frequently accompanies appendicular colic or appendicitis is not mechanical at all. There is no physical obstacle in the way of fecal passage. The constipation is a reflex matter from the appendix. The irritation of the cæcal region is reflected to the abdominal brain where the reorganized irritation is emitted to the digestive tract. The irritation slowly exhausts Auerbach's plexus of ganglia in the gut-wall and the bowel-wall cannot keep up its muscular tone—it becomes paralyzed. A paretic bowel soon distends with gas and cannot drive out either gas or fæces.

The only reasonable explanation which exists at present of visceral phenomena is by reflex action. In reflex action we must have three points, viz.: (*a*) a peripheral point of irritation; (*b*) a reflex arc or center of reorganization, and (*c*) a distant viscus or distant viscera. In partial or total obstruction of the bowels we have two kinds of pain which are very important in diagnosis. In over 200 experiments on the intestines of dogs I noticed some important symptoms of total or partial bowel obstruction. I noticed that when the intestines of a dog were totally obstructed that he suffered from *constant pain*; when the bowel was partially obstructed, as in invagination, the dog had *intermittent pain.* This constant pain for complete obstruction and periodical pain for partial obstruction held good in humans, so that it is well for abdominal surgeons to note this point. In complete obstruction the dog seemed to remain in constant agonizing pain. He acted as scarcely ever out of pain. But when the bowel was simply invaginated and stitched in position the dog had periodical paroxysms of pain. It was intermittent. He had times of pain and times of ease. This would frequently go on for one or two days, when the bowel would tear out the sutures of fixation and disinvaginate itself. If perforative perito-

nitis did not ensue the dog would meet me as happy as a bird on the second day. There are important diagnostic features between the pain of complete and partial obstruction. But to differentiate them requires much experience and careful observation. In complete obstruction of the bowel the pain is *constant;* of course it has times of exacerbations. The vomiting is active and distressing and tympanitis is considerable but generally of a moderate character. In partial obstruction (as invagination) the pain is severe, but *periodic*. The vomiting is not generally severe, and tympanitis is not marked. The *pain* in complete or partial obstruction arises at the seat of obstruction from excessive peristalsis. By careful observation of these cases of complete or partial bowel obstruction one notes with certainty the exacerbations of pain to be due to excessive vermicular motion of the gut. I have watched with considerable surprise some cases of bowel obstruction, where the abdominal walls were very thin, and noted what extensive movements the distended bowels would make. The bowels would extend and move so that large and long ridges would be plainly visible on the abdominal wall; one could easily note the rise and fall of the pain as definitely connected with excessive peristalsis. In such cases the patient cannot locate the pain. The pain is quite general in the whole abdomen, because the excessive bowel peristalsis is almost general. But if pain is located it is nearly always closely around the umbilicus, *i. e.*, in the abdominal brain. It is a referred pain, a reflex pain. A curious feature about volvulus is that it is a rapidly fatal disease, and that it is accompanied by enormous tympanitis. The pain is very severe and it is referred to the abdominal brain. In volvulus the loop of gut is rotated on its mesenteric axis and it engages a large number of nerves and quickly causes severe irritations. But there is not infection very early, so that the same law of pain or local irritation holds good, and that is: a very circumscribed irritation in the abdomen rapidly produces reflex paralysis of the bowel and so distention soon arises. In regard to pain from gall-duct or ureter, the same law holds. It is very active colic or peristalsis. The reason the pain is so agonizing is from an anatomical and physiological fact. I carefully dissected out these ducts and they are both enormously supplied with nerves. The nerve strands that supply gall-duct and ureter are both large and numerous, so they are capable of being profoundly impressed. The excessive peristalsis produced in the ureter by calculus or the gall-duct by a gall-stone has so many lines of nerves to be carried on that it deeply impresses the whole central nervous system.

Any one can see how quickly the pain of a gall-stone produces such violent vomiting, which simply shows profound nerve connections between the gall-duct and the abdominal brain. The ureter with a passing calculus affects both the periphery of the spermatic plexus (the testicles) and the abdominal brain. The agonizing character of the pain in either ureter or gall-duct only shows that nerve-supply is rich to both.

A word in regard to laparotomy for abdominal *pain*. It is frequently very delusive to depend on pain to indicate whether laparotomy should be done or not. It is not safe or wise to depend on pain. It is very delusive. Neuralgic pain or darting pain is insufficient to indicate laparotomy, as the removal of painful organs does not destroy pain. There must be sufficient physical grounds to indicate laparotomy for pain. For example, many women complain of severe pain in the breasts, but no one would be foolhardy enough to suggest the removal of the breast for pain. So some sensitive men complain of pain in the testicle, but testectomy will never be popular for pain merely. The removal of painful ovaries is often a delusion and a snare. In the same way we ought to condemn the removal of the appendages for simply dysmenorrhœa. We need more systematic observation, systematic experiment andreasoning with regard to *abdominal pain*. It should be more carefully taught, so that the general practitioner could recognize it and save many a life heretofore lost.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1897, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1897.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1896 was not awarded.

THOMAS R. NEILSON, *Secretary*.

ORIGINAL ARTICLES.

HYSTERIA,

By M. NELSON VOLDENG, M. D., of Des Moines, Iowa.

HYSTERIA may be defined as a psychosis in which, on account of diseased disturbances of the power of ideation and volition, an innumerable number of functional anomalies of the motor and sensory areas of the body are developed without the existence of any known organic lesion. The various manifestations of the disease from beginning to end are psychogenic in their character. The condition of the mind (in hysteria) is to such a degree changed from that of the normal that psychical and corporal reactions are more easily induced, not only by suggestions but also by auto-suggestions.

This peculiar disturbance of the nervous system has, on account of its nature, until within late years been surrounded by many different conceptions as to its etiology and morbid anatomy. By some the disease has been considered and classed among the insane states; by others it has been placed in the category of nervous diseases. In its symptomatology, to be sure, it resembles many forms of nervous diseases, while all traces of morbid anatomy are invariably absent. In some of its manifestations it also simulates some forms of mental trouble; the intellect, however, is at no time during the course of the disease impaired.

With our present knowledge on the subject we must content ourselves regarding this disease not as a disease *per se* but rather as a symptom or complexus of symptoms due to a functional and not an organic lesion of the nervous system and especially of the higher brain centers. The disturbance, in all probability, is to be looked for in the associating system of cells and fibers in the cerebral cortex.

We are dealing with a disease of the mind, whose manifestations do not show themselves in a disturbance of intellect but as anomalies of character and disposition. Hysteria was originally believed to be alone peculiar to the female sex, similar manifestations in the male being designated by the term of hypochondria. It was furthermore believed that hysteria was due to a disease of the ovaries; and inasmuch as the male sex have no ovaries they could not have hysteria: of late years this claim is no longer entertained, although it is true that the majority of cases are found in women. It is mainly a disease of early womanhood and early manhood; and seldom, if ever, developes after the age of thirty years: quite a number of instances are on record where hysterical symp-

toms manifested themselves before the age of four, and in one instance the disease is said to have developed in a patient under three years of age. No race, no people seem to be exempt from its ravages, although the predisposition is greater among people of some countries than others. In France, for instance, hysteria is more prevalent than in any other country. The Jewish race is particularly predisposed to all sorts of hysterical manifestations.

The germ of the disease is to be looked for through the avenues of heredity; direct transference of the disease from parent to offspring plays an important rôle. A hysterical mother is very likely to beget hysterical children; if both father and mother are hysterical the offspring is almost always sure to become hysterical. Various forms of nervous diseases, organic and functional, in the parent may be considered next in importance so far as etiology is concerned. Charcot and his students maintain that hysteria is invariably a hereditary affection and that other factors simply act as exciting causes. While it cannot be denied that hysteria, is, as a rule, directly transferred from parent to offspring, we believe that now and then cases occur where some form of nervous or mental disease may be and is alone responsible for the production of the disease.

Among the exciting causes fear and worry are to be regarded as the most fruitful. For instance, paralysis brought about by lightning and earthquakes is, as a rule, hysterical in its nature: excessive mental labor in nervous individuals may and does occasionally produce hysterical manifestations. Diseases of the female generative organs were at one time supposed to play an important rôle in the production of hysteria: this has been shown to be a fallacy, although it is a well-known fact that the female generative organs have a powerful influence upon the mind. Women who suffer from hysteria are, as a rule, sterile, which factor in many of them, no doubt, has lead to the development of the disease, inasmuch as their desire to become mothers could not be gratified. Chronic alcoholism, lead-poisoning and quicksilver-poisoning may bring about conditions of the nervous system which may lead to the development of the disease.

It is characterized by abnormal irritability and sudden and abrupt changes in disposition brought about by trivial provocations. A very important factor in the hysterical make-up is the increased susceptibility to suggestions and auto-suggestions. The power to create mental pictures and perceptions without adequate provocation is also found in the actions of the healthy mind: in hysterical subjects this faculty is to such a degree increased that mental illusions, hallucinations, and delusions are created. Actual experiences in life are not only remembered but are, so to speak, completely lived over. The power of imagination is also an attribute of the healthy mind.

This attribute in the hysterical subject is to a large degree increased. All hysterical phenomena are fluctuating in character; they suddenly appear and may, with equal suddenness, disappear. Effects are produced by trival provocations, are abnormally strong, easily changed or overturned, and have an unhealthy influence over the motor, sensory, vasomotor and secretory apparatuses. The patient is abnormally emotional. Transitory functional disturbances, which, in the normal mind, are brought about through fear, may appear in the form of paralytic phenomena.

Hysterical patients are, as a rule, very irritable; slight provocations produce violent disturbances, which, according to the nature of the provocation, show themselves in the form of anger, fear, anguish and the like; there are sudden changes in disposition; remembrances of suffering live powerfully in the mind and produce depression of spirit which shows itself from time to time in outbursts of imaginary pain and suffering. Diseases which these patients may have had during childhood may have produced such a lasting influence upon the mind that the memory of these may cause the patients later in life to actually go through the same experience of suffering and discomfort as though they were really again suffering from their childhood disease. As a rule hysterical subjects possess a very active mind; in fact, they are among the shrewdest and keenest individuals with whom we come in contact. One finds more often hysterical manifestations among the intelligent than among the less intelligent class, although it would be incorrect to say that the disease does not also occur among weak-minded and degenerated individuals. Memory, as a rule, is very acute, while the power of attention is ofttimes diminished so that impressions are not easily received or cannot be well fixed in the mind.

Globus, pre-cordial pains and cardiac palpitation are among the most frequent symptoms complained of. Indeed they may be considered as being almost pathognomonic of the disease. Hallucinations and illusions are not at all infrequent, also various forms of somnambulism. The mind rarely becomes affected during the entire course of the disease, although melancholia, mania and paranoia may occasionally be developed. Under these circumstances the question is not one of hysteria, simple and pure, but a combination of two separate psychical manifestations.

Pain of some description is always present in all cases of true hysteria and may have its seat in any part of the body; it may appear in the form of neuralgia, migraine, angina pectoris, rheumatic pains and the like. The patient invariably complains of headache, which is not always described as being of a different character.

Sometimes the headache is in the form of an hyperæsthesia of the scalp; the patient will complain of pain at the slightest touch; even the combing of the hair will cause intense pain. One of the most frequent forms of hysterical headaches is the so-called "clavus" and is often accom-

panied by a desire to vomit and the actual occurrence of vomiting. Hemicrania is also found and may last for weeks and months. Pains referred to the spinal column are of equally frequent occurrence and usually described as burning in character and for the most part affecting the small of the back. Intercostal neuralgia, coccygodynia or sacrodynia are also met with. Muscular pains at various points are now and then complained of. All of these pains are really nothing more than hysterical hyperæsthesia. Hyperæsthetic zones may alternate with zones of anæsthesia which presents a very complicated condition of things. Hysterical anæsthesia, when it exists alone, is perhaps one of the most difficult symptoms with which we have to deal in point of differential diagnosis. In hysterical anæsthesia, the anæsthesia, as a rule, is not confined to an area supplied by a particular nerve-trunk, which is always the case in organic lesions. Among the anæsthesias hemianæsthesia of the left side is the most frequent. Analgesia is also found now and then. Hysterical deafness and blindness are among the rarer manifestations.

Hystero-epilepsy, when it does occur, may very closely resemble true epilepsy. The prodromal symptom in hystero-epilepsy appears in the form of a muscular contraction about the throat designated by the term "globus;" then comes the aura, which appear in the form of peculiar sensations in the ovarian regions, if the subject is a female, and with the same sensations about the stomach if the subject is a male. This is combined with a great deal of anxiety, palpitation of the heart, noises in the ears, dark spots before the eyes together with dizziness. Now comes the epileptic convulsion; the eyes are closed, the patient falls to the ground, as a rule, not as rapidly as the one who is suffering from true epilepsy, and seldom, if ever, hurts himself in falling, this being a very important factor to bear in mind in making out a differential diagnosis; the head is drawn back and turned to one side, the muscles are in a spasmodic condition; when the trismus is complete the tongue is protruded but never injured, as is the case in true epilepsy; the arms are outstretched or closely held to the body; the hand is usually closed; the lower extremities outstretched. Directly upon this tonic condition, which usually lasts but a short time, follow the clonic contractions; these clonic contractions develop a further phase of the attack. The face becomes distorted, the extremities are placed in all conceivable positions. One peculiar position of the body is the so-called "*arc de cercle.*" These movements of the body are frequently accompanied by cries, shrieks, howls, laughter and the like. This state is followed by reaction, when the patient gradually returns to a normal condition.

The attack just described represents one of the most violent attacks of hystero-epilepsy; more frequently, however, the attacks are less pronounced and have a narrower range of disturbance. At times the attack is in the form of a Jacksonian epilepsy.

Hysterical contractures of muscles are not of infrequent occurrence and must be borne in mind when they occur. Various forms of tremors now and then occur and may very closely resemble tremors due to organic lesions of the nervous system. Joint contractures accompanied by neuralgic pains are now and then met with and may become very puzzling to the physician. The knee is most frequently affected; next in point of frequency is the hip-joint. Mono- hemi- and para-plegias are not infrequent manifestations; they develop rapidly and usually follow some emotional disturbance. Abasia is one of the rarest manifestations and consists of an absolute inability to walk or even to stand. Hysterical aphonia is the most frequent form of hysterical paralysis and perhaps the one which will most thoroughly test the skill of the physician. Muteism, while it occurs, is one of the rare symptoms.

Without going any further into the symptomatology of the disease, it may be stated that the majority of the symptoms known to exist and founded upon organic lesions may appear in the course of hysteria. The morbid anatomy of the disease is as yet in its infancy, and little or nothing is known as to its causation. The molecular theory which claims that a molecular change in the nervous system, and especially in the cortex of the brain, is at the bottom of this peculiar functional disturbance is, perhaps, the only one that deserves any notice. The subject of differential diagnosis in most cases should offer little or no difficulty, especially if the method of exclusion is adopted in the examination. In every case a systematic and careful examination of the condition of the body and especially of the nervous system should be made. All forms of paralysis can only be cleared up by the application of the electrical current to the part or parts. The prognosis is *quoad vitam* favorable: a few cases are on record where hysterical laryngo-spasms caused death. The prognosis *quoad sanationem* is in the main favorable so far as the single symptoms are concerned, but unfavorable so far as the general disease is concerned.

TREATMENT: Judicious moral treatment may do a great deal toward relieving single symptoms and manifestations. Parents should be instructed not to pay too much attention to the complaints of hysterical children; on the other hand, they should be managed with sternness though without cruelty or harshness. If possible hysterical children should be separated from their homes and placed in the hands of strangers. They should not be allowed to attend theaters, concerts and other places of amusement. Exercise in the open air, and especially physical exercise, such as gymnastics, swimming, horse-back riding, and, perhaps, bicycle riding, is to be encouraged. All exciting causes, when known to exist, should be removed if possible. A debilitated state of the body is often an exciting cause and should be treated in the usual way. If the genital organs are at fault, treatment should be directed to such diseased conditions

as may exist. The disease in older persons is also best managed away from home and friends and should have for its foundation such treatment as is applicable in younger subjects. Hydrotherapy is to be recommended in some cases; psychotherapy, however, should form the nucleus for the line of treatment to be pursued. The tact of the physician in these cases means more than all other forms of treatment combined. By this tact I mean the influence which the physician may and should have over his patient in order to produce the greatest amount of good. While medicines may be of little value in the general treatment of the disease, they should by no means be ignored, as they may have a salutary influence upon the patient's mind, while possessing little or no remedial power. All forms of anæsthesia and paralysis are best treated by means of the faradic current. Headaches, backaches, neuralgia, etc., are best treated by means of the constant current. As medicines, asafœtida, preparations of the bromides and sodium salts may be tried. As a remedy, accompanied by the psychical treatment, any inoffensive preparation may be used. In cases of hysterical vomiting I have seen the galvano-cautery applied over the stomach with the result of stopping this disagreeable symptom at once.

Hysterical anorexia is best managed according to the "Weir Mitchell treatment." Hypnotism has been used a great deal during the past year in the treatment of this as well as many other functional disorders and no doubt has a rightful place among the remedial agents.

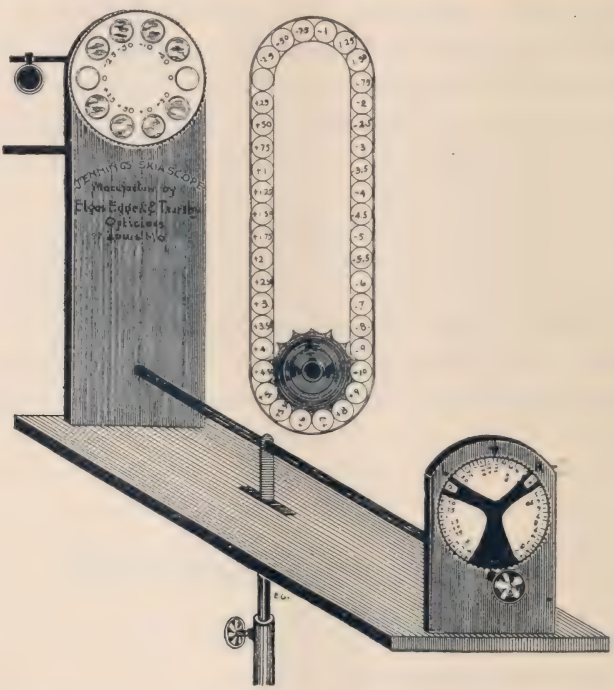
In concluding the subject of treatment, it may be said that all agents employed should be directed to the mind rather than the body.

AN IMPROVED SKIASCOPE.

By J. Ellis Jennings, M. D., of St. Louis, Mo.

SKIASCOPY or the shadow-test is now recognized as the most valuable objective test for the estimation of errors of refraction. Its findings are so accurate and so much more rapidly attained than by the old method with trial lenses that it has become deservedly popular with ophthalmologists. When, however, this method is used repeatedly each day the surgeon is apt to rebel against the loss of time and the fatigue occasioned by the constant change of lenses from box to trial frame. The skiascope here presented is designed to meet these objections and will be found a valuable aid to those who use skiascopy in their refractive work. The mechanism of the instrument is simple and was suggested to the writer by that of Morton's ophthalmoscope. It consists of thirty-nine lenses inclosed in an endless groove and propelled by a strong driving-wheel situated at the

lower end of the frame. A small rod runs the length of the table and is connected at one end with the driving-wheel and at the other with a small wheel within easy reach of the operator's hand. At the surgeon's end of the table and facing him is a disc on which at a certain aperture (marked L or R according to which eye is under examination) is indicated the lens presented at the sight-hole. The red numbers represent convex and the white concave lenses. The lenses range from .25 to 9. D. plus and from .25 to 10. D. minus. In addition to the lenses just mentioned are eight others, .25, .50, 10. and 20. D. plus and minus, set in a separate disc, any one of which can be put in front of the sight-hole without rotating the whole series of convex or concave lenses. By means of this extra disc we can make combinations from .25 to 29. D. plus and from .25 to 30. D. minus.



In front of each sight-hole is placed a cell marked in degrees to hold cylinders (not shown in drawing). Attached to the back of the upright frame by means of a hinge is a chin-rest and a movable blinder both of which swing to right or left, as may be desired. The whole is mounted on a strong stand, which can be raised or lowered to suit the requirements of each patient.

The essential advantages of this skiascope are as follows:

1. It saves time and fatigue in changing lenses.
2. It is under the control of the operator and indicates the lens in front of the sight-hole without getting up.
3. The mechanism is simple and durable.

4. There are no shafts, uprights and indicators to obstruct the view of the operator.

5. It is only under exceptional circumstances that it is necessary to use the disc containing the extra lenses.

6. There is only one indicator and one wheel to turn.

7. Its handsome appearance and moderate price.

This skiascope is made by Elgas, Eggert & Thursby, Opticians, 520 Olive Street, St. Louis, Mo.

HYDROZONE IN GASTRIC AND INTESTINAL DISORDERS.

By JOHN AULDE, M. D., Philadelphia, Pa.

[Published by the *New York Medical Journal*, August 15, 1896.]

A PERIOD of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent, and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing practically every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum, and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well-known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned, although, in view of the fact that hydrozone is a more concentrated product, and,

withal, a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medicinal peroxide of hydrogen.

In gastritis, either acute, subacute, or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased output of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objectionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted hydrozone (one to thirty-two) and lie on the right side so as to facilitate the action of the stomach in discharging its contents*. The antiseptic properties of hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach in a healthy condition for the absorption of nutritive pabulum. All forms of fermentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later, small portions of solid food can be ingested, but all food-stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch-granules, breaking them up and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contain, in addition to the nascent oxygen contained in hydrozone, a percentage of glycerin which favors osmosis and assists in re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduction as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of

*In chronic cases with a large output of gastric mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of hydrozone.

which will be understood when we consider the large number of micro-organisms which grow under those favorable conditions with such remarkable rapidity.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects. These irrigations may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed this communication will prove serviceable to a large number of practitioners who have hitherto found serious difficulties in counteracting the mephitic influences of bacteria in this class of disorders, and the clinical virtures of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment.

CORNU CUTANEUM AND CORNU UNGUALE,

By A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

CORNU CUTANEUM is, without doubt, one of the most striking of the hypertrophic diseases of the skin which is met. It is of rather unusual occurrence, especially in certain forms, and is very apt to go on neglected by the individuals subject to it. This is possibly due to the fact that it is looked upon rather in the light of a deformity than a disease. That it is a hypertrophic trouble is beyond a doubt and it should always be met with prompt and energetic treatment as well as proper management. We do not see as many reports of marked cases of cornu cutaneum to-day as formerly and this is probably owing to two causes. In the first place, the trouble is recognized in its incipiency and properly treated; and, on the other hand, those afflicted with the trouble do not permit it to assume such enormous proportions untreated. These reasons are sufficient to prevent the development of such enormous growths as the older writers described a little over a half-century ago and earlier. Yet, when we take into consideration all the cases described, including the fabulous and fantastic stories told about them, they really amount to but few and a far greater number have been accurately described and delineated by modern authors who thoroughly understood them and their treatment. A marked case may be occasionally seen exhibited in a circus or museum as a "freak"

and these individuals are always opposed to treatment under the plea that their trouble is their only mode of support and subsistence. Outside of these examples cases may be encountered, though very rarely, in the rural districts remote from towns or cities.

As the name of the trouble implies, cornu cutaneum is a true horny growth of the skin which manifests itself to a greater or less degree according to the length of time during which it has been growing. As a rule it is seen after middle age or in old age. No case has ever been recorded growing in the young or in a child, and this is easily understood when we take into consideration the conditions of growth and development of the tissues at these different ages. There is no doubt that in advanced age the tissues possess a marked tendency to hyperplasia and hypertrophy and it is at this stage that such processes are more active as well. Absorption and resolution as well as an inflammatory resolutive process back to the normal do not actively manifest themselves but rather the tendency to the establishment of chronicity. Another condition which has

FIG. 1. Cornu Cutaneum.

been noted in connection with advancing years is the existence of a great susceptibility on the part of tissues to irritative influences. The response to such irritations shows itself in the form of hypertrophic or malignant growths or a combination of both. In some cases it is simply the former which has the latter engrafted upon it after a certain lapse of time. In any case it is certainly a conclusive demonstration that there exists an altered cellular arrangement in addition to changed nutritive processes and altered assimilation.

These horny growths are rather long, reports being furnished in which

they were as much as fourteen inches long. The longest one which I ever had occasion to see was considerable, measuring nearly eight inches. A picture of the case is shown in Figure 1. What became of the individual is unknown, as he suddenly disappeared, and it would have been interesting to follow his subsequent history. The horns are always more or less ribbed, and usually have an oval cross-section. They taper to a certain degree to

FIG. 2. Cornu Cutaneum.

the free extremity, the base having the largest diameter. Whilst the tapering is gradual in most cases, as shown in Figure 1, in others it is more inclined to come to a point, as is well shown in Figure 2, or there is as great a width at one extremity as at the other, as may be seen in the same picture. The texture of these growths is horny, tough and very hard to cut. A double cleavage may be demonstrated. One shows a layer of hori-

zontal plates, and the other a tendency to separate in longitudinal fibres. This is an invariable rule in such cases, and it simply demonstrates that the growth is abnormal and not the analogue of the horn seen in hoofed animals, which consists of a series of plates laid around a central core. At the point of implantation the skin is somewhat elevated in a rounded ridge which surrounds the horn in a marked manner, as may be seen by referring to Figures 1 and 2. It gives the impression as if the horn had been pressed into soft putty and that the latter had raised itself in the form seen. This ridge is hard to the touch, and generally presents a more or less hyperemic appearance, more especially when the horn has been growing for a considerable period of time. Occasionally even slight pressure on this ridge will elicit the sensation of pain, and pressure on the growth itself invariably does so. The attachment is always to the integument, and, at best, is not very firm, another feature in which these growths differ from true horns, which are always firmly attached to bone. In color these horns are a grayish or dirty yellow, or even black, this depending largely upon the quantity of dust or dirt which may have accumulated upon or become attached to the growth.

Cornu cutaneum is more frequently seen in men than in women, so far as I have been able to determine from recorded observations. In my own experience I have never seen it but in men past middle age. The face appears the locality most often the seat of this peculiar hypertrophy. Here horns are observed growing from the forehead, on the nose, over the malar eminences and about the ears. The upper lip is not infrequently the seat of this hypertrophic growth, and cases have been observed in which both lips were implicated. In this form it is almost the rule for the vermilion border and the mucous membrane to be implicated. The prepuce appears to be a favorite site also, and here the mucosa also shares in the involvement. In those cases in which cornu cutaneum occurs upon the lip or the prepuce an entirely different appearance is presented from those which have been described above. The lesion consists essentially of an irregular spinous mass composed of horny tissue. Very rarely there is but one short horn implanted on a broad base. More usually there are a number. There may be six or more small horns or spines, all springing from a common base of hypertrophied horny tissue very firmly adherent. On the other hand, the whole may simply consist of an irregular hypertrophic mass firmly embedded in the underlying tissues. No matter what the form assumed may be, all cases of cornu cutaneum of the lips and of the prepuce not only constitute deformities but are highly inconvenient as well as painful, and, unlike the other forms observed, always apply for relief.

The determination of the cause of this peculiar growth is one of the problems in pathogenesis which has not yet been satisfactorily solved. In many localities, such as the prepuce, lip and cheek, a wart has been

observed to be the primary lesion, apparently. In many more nothing in particular has been noted and we are forced back to the conclusion, unsatisfactory as it may be, that irritation is the cause. Other hypertrophies of the horny layer, such as tylosis, are, beyond doubt, due to direct mechanical irritation, and verruca is often due to this form or to a deeper cellular irritation. This, however, is an unsatisfactory pathogenesis, although the evolution of cornu cutaneum would seem to point to an irritation accompanied by greater or less degenerative changes. Be this as it may, one fact remains: the growth having begun it will continue for a number of years, until a comparatively enormous size has been attained, such as is shown in the figures which are given. Some extraordinary cases have been recorded by ancient authors, but they seem to have drawn a great deal upon their imaginations, and the stories are to-day looked upon as apocryphal.

The trouble is one which is usually self-limited. In the course of time, and this may extend over several years, the horn will drop off spontaneously, leaving an ulcerated base surrounded by an elevated and indurated border. At the time that the horn is cast off, or a very short period later, it will be found that the ulcer is epitheliomatous. This is one of the reasons why such growths should never be permitted to go on untreated, as the malignant process will increase in size and severity and frequently lead to results of a very serious nature. Of course, the larger in area the base is the more severe will such a spontaneous termination be. Cases will be seen in which the horny growth is no larger in cross-section than the little finger-nail and possibly one-sixteenth of an inch in height, or the horn will have a base not larger than a goose-quill and be a quarter of an inch in height. These are apt to be looked upon as very small matters by patient and physician alike, and in view of the age of the former no more attention will be paid to the growths, which are looked upon as simple deformities. No more erroneous idea could be entertained. The same prompt care and attention should be bestowed upon these as upon the larger horns. The treatment should be both thorough and radical in all cases in order to insure both a good result and a permanent relief.

The treatment of these cases is purely surgical but should be made through the sound tissues so as to avoid a recurrence. In those cases in which the prepuce is affected no better means can be employed than circumcision. If the glans is also implicated excision of the affected part or even amputation of a portion of the organ may have to be resorted to. This is sufficiently radical to prevent either the formation of an epithelioma or its extension if it already exists. In some cases which have been neglected too long complete amputation of the penis must be performed. When the lip or lips are the seat of the trouble it is not judicious to remove the labial structures. It is much better to excise the growth and then treat the base by means of the electro-cautery or Pacquelin's thermo-cautery. These cau-

terizing agents are far superior to the chemical ones in this particular locality. In horns of the face and other localities not mentioned excision should be practiced, and as soon as this has been done curette the base. A dressing of bichloride gauze is then to be applied for a few days and this followed by the application of the following:

℞ Aristol ..... ℥j
Ung. aquæ rosæ ..... ℥j
Misce et coque.
Sig.: Apply twice a day.

If a dry dressing be preferred campho-phénique powder will prove efficient and non-irritating.

Cornu Unguale is closely allied to cornu cutaneum and resembles it in form to a great degree. Foulerton has divided all these growths into horns which are the result of the overgrowth of a toe-nail, those which arise from cyst-walls which are atheromatous, and those which arise from warts or papillomata, the so-called papillary horns, which are by far the most frequent in occurrence. Cornu cutaneum is keratodermic in origin as well as in form and structure. It is, as stated above, a true hypertrophy of the stratum corneum of the epidermis and its growth, so far as length is concerned, is almost indefinite. In cornu unguale we have an analogous and still a very different form of hypertrophy of the horny layer. The case which I will describe is one which, so far as a search in literature and inquiries made of dermatologists show, is unique. It is a most interesting example of a condition which has not received the attention which it certainly deserves. It is one which is certainly alone and a history of the case will probably prove more interesting than a mere perfunctory description.

The subject is a comparatively young man, being very little over thirty years of age. He is of mixed Mexican and American descent. He states that his present condition has always existed ever since his birth. To describe it briefly, it may be stated that growing perpendicularly from each finger and thumb there is a horn-like growth the diameter of whose base and the form of which correspond to that of the finger-nail. The length of each one of these horns is about four inches. All of these horns show a slight curvature toward the dorsum of either hand, as shown in Figure 3. They are all firmly attached, although somewhat movable. There is no marked pain noted under ordinary movement, but it is quite severe when any one of these growths is moved to such an extent as to affect the nail-bed at the base. The horns are not perfectly round on cross-section but appear more or less ribbed upon superficial examination. One of the horns, that upon the left middle finger, was broken off accidentally, so the patient states, and no particular pain or discomfort was felt at the time this accident occurred.

An examination of the palms of the hands discloses the existence of a curious condition of things. A condition is here seen which closely resembles tylosis and yet is not that trouble, because, if for no other reason, the horny masses are congenital and not acquired. By consulting the figure

FIG. 3. Cornu Unguale.

it will be found that in the right hand, near the wrist, and about the center of the palm, there is a large horny mass, more or less fungous in appearance, attached firmly to the skin which itself is freely movable over the underlying connective tissue. On the ulnar side at the base of the fifth meta-

carpal bone there is a pea-sized roundish growth. The palmar surfaces of the thumb and little finger are involved by similar horny growths whose distribution is in a more or less linear disposition. All the other fingers are involved in an analogous manner by small horny growths. The left hand is similarly affected on the lower portion of the palm near the wrist; the ulnar edge of the palm shows three of these small horny formations. The thumb and little finger also have their palmar surface the seat of linear distributions of the same hypertrophic small masses. The other fingers are not so extensively implicated, but they show well-defined formations, circumscribed in character and horny in composition. The condition observed upon the hands exists upon the feet also. The soles are affected in the same manner as the palms, more particularly in that portion of the anterior part which is situated a little posterior to the digital clefts in the center. This gives rise to considerable pain on account of the pressure caused by locomotion and by the constant growth of these horny masses. The growth is aided to a marked degree by the stimulation afforded through the pressure occasioned by standing and walking. The same causes contribute to make the tenderness in these localities still greater. The heels suffer also in a most acute manner. Along the external border of the soles there are numerous small horny masses disseminated in the same manner as that in which we find them upon the hands. The horns on the dorsal surface of the distal phalanges are exactly the same in character and in appearance as those observed upon the fingers. Their growth is much more rapid, and the patient keeps them trimmed down in order to be able to wear shoes which are specially made to adapt them to the condition which exists.

This unique condition is one of rare interest for a number of reasons. In the first place, it is the only case of the sort which has ever been reported. Further than this it does not seem to share in the one well-known element of causation observed in nearly all of these keratodermic growths—that of being the result of some external irritative influence. In the case described all the growths were congenital. This fact has been attested to by his mother and an elder sister. Whilst there are brothers and sisters none other shares or participates in this deformity with him, nor are any of them affected by tylosis or callus even. A further peculiarity lies in the fact that the hypertrophy of the nails which exists is not a true onychogryphosis. The horny hypertrophy which is seen on the palms and soles is not due to any friction nor to any other external stimulation or irritation; for the patient has never worked and has carefully avoided all such things as might irritate the implicated parts. Furthermore, no keratosis exists upon any other part of the body.

The tendency of these growths, as shown in the present instance, is to grow indefinitely, and, after a certain length of time, a condition takes

place such as is manifest in the case described—a change in the direction of growth occurs. This direction becomes spiral and then continues to grow as a spiral for an indefinite period of time. This seems to be a peculiarity inherent to ungual tissue. It is observed in some cases of onychogryphosis and is particularly to be noted in those cases in which the nail-plate is thick. When it is thin the nail simply bends and often breaks. The spiral form of overgrowth shows itself markedly in the lower animals, more especially the solipeds. I have had occasion to see a jeannet in whom the hoofs of the hind feet had grown in a perfect spiral to a length exceeding six feet. Otherwise the animal was perfectly healthy. It may not be inopportune to state that the subject just described has always enjoyed the best of health and is well built and well nourished.

A more particular description of the horns may not prove uninteresting before the subject of the treatment is taken up. Each horn consisted of two distinct parts so closely attached to one another that they could only be separated with difficulty. Extending along the whole length and two-thirds around each horn was a plate of true nail substance. It had a dark, brownish-black color and arose at its base from what would be considered the inner border of the nail-fold. This nail substance was hard and polished, and, on section, proved to be constituted in the same manner as the true nail. Filling this curved plate was a horny substance derived from the nail-bed and very much like that found occurring under the distal part of the nail in certain cases of keratosis of this tissue. It also was of a dark color and quite hard, no doubt on account of its exposure to the air. A certain amount of brittleness present in the entire growth no doubt was due to the dessicating influence of the air.

So far as the treatment of such a condition is concerned it is essentially the same as that of cornu cutaneum. There is but one thing to be done and this has for its object the prevention of any further growth. In case such a step should be deemed desirable, it will always be well to bear in mind the fact that the mere cutting off of the growths will not prove sufficient to accomplish the purpose. No fear need be entertained that an epitheliomatous or other malignant process will occur, as such is in the highest degree improbable. But it is absolutely necessary to destroy all those elements which participate in the proliferation of the horny cells which go to produce the growth; and, in order to do this efficiently, it is absolutely necessary to completely separate the nail from its bed, taking care to see that no particle is left in contact with the matrix. Further than this both the matrix and the nail-bed should be completely destroyed by means of either the galvano-cautery or the thermo-cautery. For, if but the smallest particle be left, it will form the starting point for a new development and the focus of a new growth. Properly performed, the operation will entirely eradicate the trouble.

FORMULAE.

For Dry Eczema with Pruritus (Thibierge, *Medical Times and Hospital Gazette*):

℞ Menthol ..... gr. xxx
Resorcin ..... gr. xv
Sulphur. præcipitat ..... ʒiiss
Zinci oxidi.
Vaseline ..... ʒj

M. Fiat unguentum.

Psoriasis (Schmitz, *Medico-Surgical Bulletin*):

℞ Ichthyol ..... ʒj
Acidi salicylici ..... ϑj
Zinci oxidi ..... ʒij
Amyli ..... ʒiv
Petrolati ..... ʒj

M. Sig.: Apply locally twice a day.

Perforating Ulcer of the Foot.—In advising treatment for a case, Dr. Cantrell (J. M. C., 1885) stated that the easiest plan was to fill the open sore with a powder of resorcin in zinc oxide, in the strength of one-half drachm to the ounce, and then apply a piece of paraffin paper, cutting a piece of adhesive plaster somewhat larger than the ulcer, so as to relieve it of pressure.—*Philadelphia Polyclinic*, November 14, 1896.

After Labor Complicated with Placenta Prævia, the tincture of the chloride of iron in doses not exceeding ten drops, well diluted, may be given with advantage. The following is also a useful prescription:

Tartrate of iron and potassium ..... gr. 60
Extract nux vomica ..... gr. 3
Scale pepsin ..... gr. 30

In thirty capsules, one four times daily, with food.

E. P. Davis.

Neuralgia Liniment.

Pure mustard oil ..... 1 part
Camphor ..... 2 parts
Peppermint oil ..... 5 parts
Ether ..... 10 parts
Alcohol ..... 30 parts

This has been found of great service in most obstinate cases of neuralgia, and is applied to the affected part by means of a camel's-hair pencil. Olsen.

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PAUPERIZING THE PROFESSION.

Not content with fostering many cheap insurance schemes and aid societies, whose members receive gratuitous medical and surgical treatment for the payment of a ridiculous fee, Saint Louis now boasts of at least one hospital where free treatment is given to all who join an association, whose members pay the magnificent sum of fifty cents a month! With the City Hospital, Female Hospital and Poor House, in addition to the countless free clinics and dispensaries at the command of all who cannot or wish not to pay a fee, the outlook for the future finances of the general practitioner is exceedingly bad. Before the profession is pauperized we hope the general government will pension all physicians and surgeons.

ABSORPTION OF THE PEORIA MEDICAL RECORD.

The *Peoria Medical Record* has been absorbed by the TRI-STATE MEDICAL JOURNAL. This is in accordance with our policy which aims to make this publication stronger every year. Doctor W. R. Allison, the able editor of the *Record*, assumes a position on our staff of Departmental Editors. He will have charge of the Department of "Practice." Our readers will appreciate Dr. Allison's work, and advertisers will please note that we gain many subscribers by the absorption.

THE MEDICAL COLLEGE OF THE FUTURE.

The medical college of 1920 will present some features unlike those of the schools of to-day. The authority to charter such an institution will rest with the Body Medical, and it must be shown to the satisfaction of the profession that there is need of the new college. Permission having been granted by the Body Medical the charter is issued by the Secretary of State, provided the trustees of the proposed medical school show that they can command the following: (1) A cash capital of $50,000 with which to purchase apparatus, pay rent of suitable buildings, and compensate the faculty; (2) a hospital of 100 beds which shall have been in successful operation for five years previous to the time of applying for the charter of the medical school, and it must be demonstrated that the hospital possesses sufficient endowment to secure its continuance in perpetuity, and that the hospital accepts indigent patients only; (3) the possession of additional clinical facilities at other hospitals (aggregating 500 beds) with which the proposed faculty is connected.

By the terms of the charter the new school shall be empowered to grant certificates of attendance upon the five years of medical study; this certificate, however, does not entitle its holder to practice, but gives him the right to appear before the National Board of Medical Examiners, who decide upon his fitness to enter the profession. The charter, furthermore, may be revoked for cause. The causes of revocation will be numerous and include the admission of students deficient in preliminary education, underbidding for patronage, maligning other schools or practitioners, and the treatment of patients at the clinics who are able to pay.

ST. LOUIS ACADEMY OF MEDICAL AND SURGICAL SCIENCES.

The Academy held its annual meeting November 6, and elected the following officers: President, Dr. Otto Sutter; Senior Vice-President, Dr. Carl Pesold; Junior Vice-President, Dr. G. C. Eggers; Treasurer, Dr. Wellington Adams; Secretary, Dr. Ozias Paquin; Orator, Dr. Thomas Osmond Summers; Curator, Dr. Emory Lanphear.

The Academy is doing good work and the membership is increasing rapidly. Among those whose names have been recently proposed for membership are Doctors P. J. O'Reilly, E. H. McCullers, Philip Scholz, Floyd Stewart, and Fayette C. Ewing.

DOCTOR MADDEN HONORED.

All of our subscribers who have read the writings of Doctor Thomas More Madden will be interested in the following clipping from a recent issue of the *Irish Times*:

"Dr. More Madden, upon whom the Honorary Degree of M.A.O. was conferred yesterday, for many years has been well-known as an obstetric and gynæcological practitioner, teacher and writer, and has received many honors in these branches of medical science. Thus he has filled the positions of President of the Obstetric Section of the British Medical Association and of the Irish Academy of Medicine, and was Honorable President of the International Congress of Obstetricians at Brussels. From the Medical College of Galveston he got the degree of M.D. *Honoris Causa*. He has held a number of offices in his special branch, being Obstetric Physician and Gynæcologist to the Master Misericordiæ Hospital, Consulting Physician to the Children's Hospital, and Consultant and ex-Master of the National Lying-in Hospital. Amongst his writings are—"Clinical Gynæcology: A Handbook of Diseases of Women," "The Health Resorts of Europe and Africa." He has also contributed very extensively to periodical medical literature and to works such as "Quain's Dictionary of Medicine," and has been editor of "The Dublin Practice of Midwifery," "Memoirs of the late Dr. R. R. Madden," "A Handbook of Obstetric and Gynæcological Nursing," etc.

DOCTOR JOHNSTON'S EPILEPTIC SANITARIUM.

Doctor James Johnston, of Gallipolis, Ohio, is the superintendent of the only private hospital in the United States devoted exclusively to the care of epileptics. There are only two public institutions of this kind in the country, one in Ohio, the other in New York. Doctor Johnston writes: "The remarkable success in treating such cases in the State Hospital is what has induced me to establish a private hospital where persons outside the State can have the same advantages of such treatment of such cases in the diet, a thing the general practitioner cannot control."

CALIFORNIA IS ALL RIGHT.

At this time, when so many schemes calculated to injure the general practitioner are afloat, we are glad to learn that the physicians of Santa Clara County, California, have adopted the following resolutions:

"WHEREAS, Rendering professional services at a stipulated fee per capita per annum is derogatory to the dignity of the medical profession, we, the undersigned physicians and surgeons of Santa Clara County, California, enter into the following agreement:

"FIRST.—We mutually, jointly and individually pledge our word of honor not to enter into any contract or agreement, or renew any existing contract or agreement, either written, verbal or implied, to render medical or surgical services to any lodge, society, association or organization.

"SECOND.—We will not render medical or surgical services to the members of the above mentioned bodies for less compensation than we charge the general public for similar services.

"THIRD.—This agreement shall not be construed to affect existing contracts between physicians and surgeons and the above mentioned bodies.

"FOURTH.—These pledges shall take effect and be in force for a term of three (3) years from and after May 22, 1896.

"This agreement shall not apply to hospitals and purely public charitable institutions."

We assure our California brethren of our distinguished consideration, and hope they may live long and prosper.

THE PHENIQUE CHEMICAL COMPANY'S NEW PREPARATIONS.

The Phénique Chemical Company, of St. Louis, has recently placed several new preparations on the market. Of these aprondyn, a new aphrodisiac, is worthy of attention.

The moyrapuama is very well known throughout Brazil, where it is considered a tonic of the nervous system and an aphrodisiac of the highest energy. The first notice that we find of it is in the writings of Portuguese and Spanish priests, who had been sent thither in 1704 to catechise the natives. The plant is, in fact, somewhat rare, and the difficulty of finding and recognizing it in the tangled wilderness of these rank jungles is such that its procurement has remained up to the present in the hands of those natural botanists, the indigenous medicine men, who make no small profit of the fact.

It is affirmed that it is not toxic and that it is a positive aphrodisiac. Dr. Kleesattel, of Stuttgart, who wrote a thesis on the plant (Pharmakognosie der Muira Puama. Ulm, 1892), took this view, and Drs. Husemann, of Goettingen, Pekott, of Rio Janeiro, and Bees, of Erlangen, are of the same opinion. On the other hand M. Glazion, a distinguished botanist, and director of the Botanical Gardens at Rio, and Dr. Clement Malcher, long time a resident of Para, place moyrapuama among the acanthaceæ (see Estatistica dos arvores silvestras. Para, 1881).

Brazilian physicians are unanimous in their declarations of the efficacy of moyrapuama, and among them we may cite the names of Antonia Montero Baena (Ensayo coregraphico. Para, 1889); Joachim de Almeda Pinto (Dicconario de Bontanica brasiliera, 1873), and Mello Maraes (Phytographia brasiliera. Rio, 1881).

HISTORICAL SKETCH.

THE ANATOMICAL RENASCENCE,

By James Moores Ball, M. D., of St. Louis.

[CONTINUED FROM OCTOBER ISSUE.]

Jacopo Berengario da Carpi, or, as he is sometimes called, Carpus, the son of a surgeon and a graduate of Bologna, taught surgery first at Paris. He held the same chair at Bologna from 1502 to 1527, after which he settled in Rome and enjoyed the benefits of an immense practice. Like Celsus, he was skilled both in medicine and surgery. He employed mercury in the treatment of syphilis with great success, and was the first physician to prescribe that remedy in this disease. Berengario dissected more than one hundred bodies, wrote commentaries upon Mondino, corrected the text of the latter's book, and enriched it by many original observations. He first described the basilar part of the occipital bone and the tympanic membrane. Meryon credits him with the "first correct description of the great omentum

FIG. 1. A dissection according to Berengario, 1535.

(gastro-colic) and transverse meso-colon; of the cæcal appendix vermiformis, of the valvulae conniventes of the intestines; of the relative proportions of the thorax and pelvis in man and woman; of the flexor-brevis-pollicis; of the vesiculae seminales; of the separate cartilages of the larynx; of the membranous pellicle in front of the retina (attributed to Albinus); of the tricuspid valve, between the right auricle and ventricle of the heart; of the semi-lunar valves at the commencement of the pulmonary artery; of the inosculation between the epigastric and mammary arteries, and an imperfect account of the cochlea of the ear." An accurate anatomist, he is said to have been a surgeon of great skill. His *Commentaria supra Anatomiam Mundini* was issued in 1521. The following year his *Isagogæ* appeared.

This passed through several editions and contained illustrations. One of the most striking of these has been reproduced from the *Isagogæ* of 1555. The similarity between this figure and that of Mondino is noticeable. Another anatomist who commented upon the book of Mondino was **Johann Eichman** (Dryander), of Marburg, whose treatise was published in that city in 1541 and contained many plates. Copies of any of the editions of the anatomies of Mondino, Gabriel de Zerbi, Magnus Hundt, Laurentius Phryesen, Alexander Achillini or Berengario are very rare. They can be picked up only in the antiquarian book-stalls of Europe.

Charles Estienne (Carolus Stephanus), who lived between the years 1503-1564, was the author of an anatomical treatise: *De Dissectione partium Corporis Humani, Libri tres*, which contained startling figures as well as numerous observations. Estienne first described the nutrient foramina of bones, the ligaments which bind the bones together, the vomer, the transversales perinei muscles, the three branches of the fifth pair of nerves, and the canal of the spinal cord. He also distinguished between the pneumogastric and sympathetic nerves and is said to have been the first to describe valves in the veins. Concerning the discovery of the valves there has been much controversy. Meryon says that the absolute priority must be conceded to Estienne. To use the words of this historian: "Étienne saw only the valves of the vena azygos and hepatic vein, Cannanus and Amatus of the renal and iliac veins, whilst Sylvius described those in the veins of the extremities and neck." Harvey, the immortal discoverer of the circulation, credited Fabricius, of Aquapendente, with being the first who "gave representations of the valves in the veins."

Estienne's book was issued at Paris in 1545, although much of it had been in print six years earlier. Many of the plates used to illustrate it were cut as early as 1530. For the most part they show the whole figure, surrounded by elaborate scenery. One of the plates, reduced one-half, is shown herewith.

Francois Rabelias (1483-1553), for many years a professor of medicine in Montpellier, is best known as the immortal author of the history of Gargantua and Pantagruel, although he was an anatomist of no inconsiderable merit. No less a discovery than that of the circulation of the blood has been claimed for him by admiring friends. Rabelias lectured upon anatomy in Paris, using the cadaver to illustrate his theme.

Jacobus Sylvius was another sixteenth century anatomist whose name deserves a place in this chapter. He must not be confounded with Sylvius de la Böe, who lived in the seventeenth century. Jacobus Sylvius, or, as the French call him, Jacques du Bois, was noted for his eloquence, his avarice and the strictness with which he exacted his fee from students. At times more than five hundred students listened to his prelections, while Fernel lectured to only a score. When Vidus Vidius left the royal college of Paris and went to Pisa, in 1550, Sylvius became his successor. Among his pupils was Vesalius. Unlike many of his contemporaries Sylvius lectured from the cadaver and not from the writings of Galen. He was the first to give particular names to the muscles, and distinguished between voluntary and involuntary muscles. He first described the pterygoid and clinoid processes of the sphenoid bone, the os unguis, the transverse and oblique processes of the vertebræ, the obliquus externus and transversalis muscles, the muscles of the hyoid bone, the valves in the veins of the extremities

and those of the external jugular vein. Like Rabelias, Sylvius has been named as the discoverer of the circulation. His views of the heart were highly complicated and showed the influence which the Galenic doctrine still exerted upon the minds of men. By its diastole the heart attracts blood into the right ventricle from the vena cava and air into the left from the arteria venosa (pulmonary vein); the systole throws the blood into the vena

FIG. 2. Figure from the book of Charles Estienne (Carolus Stephanus), Paris, 1545.

arteriosa (pulmonary artery) and arteria magna (aorta), and fuliginous vapors into the arteria venosa (pulmonary vein). The description which Sylvius gives of the foramen ovale is not found in preceding works. He was the first who used injections in tracing the blood-vessels, and was one of the first who observed valves in the veins, although, like several other

anatomists of mediæval times, he did not know their use. He correctly described the corpora quadrigemina, as well as one of the cerebral sulci, which is called the fissure of Sylvius. He also described one of the cerebral arteries (arteria fossæ Sylvii) and the aqueduct which bears his name.

FIG. 3. Anatomical plate from the book of Hamusco (Roma, 1560).

Joannes Guinterus (**Winter, 1487-1574**), of Andernach, a town in the circle of the Lower Rhine, published a book in 1536, in which some important anatomical facts were stated. Vesalius and Servetus were among his students. In his book, *Anatomicarum Institutionum ex Galeni Sententia*, the term pancreas is first used. The uterus, according to Guinterus, con-

sists of two sinuses corresponding with the number of breasts, not divided by a septum, but terminating in a narrow cavity or neck. His description of the heart is an improvement over that of preceding writers. He is noted as the translator of the works of many of the ancient Greek physicians.

Deeply versed in ancient languages, Guinterus resigned the chair of Greek in the University of Louvain that he might study medicine in Paris. Appointed physician to Francis I., he practiced and gave lectures on anatomy for many years in Paris. Called to Denmark by Christain III, he was compelled by religious disturbances to remove first to Metz, then to Strasburg, where he held a professorship. Emperor Ferdinand I., in 1562, raised Guinterus, "the beggar of Deventer," to the rank of nobleman.

Juan Valverde di Hamusco, a Spaniard of Leon, studied anatomy at Padua and Rome under Columbus and Eustachius, and wrote a handbook of anatomy in his native tongue. This treatise was translated into Italian, Latin and Hollandish. Although Valverde claimed to have taken his illustrations from Vesalius, yet his book contains many plates not found in the writings of the great reformer. These were drawn by Gaspar Becerra and engraved by Nicolas Beatrizet. One of the plates representing a muscle-man (*muskelmann*) holding up his cutaneous covering, is here shown. The title of the volume is: *Historia de la Composicion del Cuerpo Humano, Roma, 1560.* To Valverde belongs the credit of introducing the study of anatomy into Spain.

John Phillip Ingrassias (**1510-1580**), a graduate of the celebrated Paduan School, described minutely the anatomy of the ear, including the tympanum, fenestra rotunda and ovalis, the cochlea, semi-circular canals, and the tensor tympani muscle. His admiring pupils caused his portrait to be painted and placed in the Neapolitan schools with this inscription: "To Phillip Ingrassias, of Sicily, who, by his lectures, restored the science of true medicine and anatomy in Naples, his pupils suspended this portrait as a mark of grateful remembrance." Ingrassias was a voluminous writer, his chief work being a treatise on osteology, which was published twenty-three years after his death. When the plague depopulated Palermo, in 1575, his devotion was such as to earn for him the title of the Sicilian Hippocrates. Few men have been more earnest workers in medical science. If his fame as an anatomist has not equaled that of others, the cause is to be sought in the multiplicity of competitors, not in lack of zeal and ability.

Instruction for Medical Practitioners.—We understand that a number of prominent St. Louis physicians will soon establish a course of instruction for medical practitioners. Among the subjects which will be taught immediately are diseases of the eye, ear, nose, throat, skin, the technique of abdominal surgery and various laboratory branches. There is no doubt that such instruction is needed. We learn that other subjects will be added as soon as possible. In our next issue we hope to present more definite information in regard to this venture.

REMINISCENCE,

By EDWARD BORCK, A. M., M. D., St. Louis, Mo.

A NAME.

"What's in a name? that which we call a rose
By any other name would smell as sweet."

A MAN'S name may be a great source of satisfaction to him, but is quite as frequently the innocent cause of much unnecessary annoyance, by misspelling, misuse or being confounded with names to which it bears a slight resemblance. The following list of names readily demonstrates the statement: Borck, Barck, Bock, Burg, Burk, Borock, Brock, Borcke, Van Bocke, Brook, Broocks, Buck, Buke, Burk, Bourk, Burke, Boek, Bruck, Barcher, Brokaw, Rooch, Rock and numerous others.

Why these names should be mistaken one for another is difficult to explain. Is it due to carelessness, defective hearing, or a fault of sight that makes it impossible for persons to distinguish the different combinations of letters in these names? If the names were correctly pronounced they could not be misapplied, and a careful observation of the combinations of letters would certainly avoid their being misspelled when written.

It may be profitable to some and very disagreeable to others to have one or more letters of their names changed, added or diminished. To say very little, it at times becomes very vexatious and annoying, although the author of this article experienced considerable amusement through these varied confusions of a name.

Let me here illustrate with a few laughable incidents:

CASE I.—A man, unconscious and with a scalp-wound, was found in a stone-quarry. He was carried home and his wife at once sent a messenger for Dr. Borck, whom she did not know personally but only by reputation. The messenger started out on a run. Misdirected or probably not knowing the location of the doctor's office, he finally saw a name which he evidently took for the name of the doctor for whom he was sent, and summoned that physician. The physician arrived and making a careful examination of the patient pronounced him beyond human aid, and left him to his fate. The following morning the papers stated, with display letters, the accident that had befallen Mr. N., who, happening to fall into a deep abyss, fractured his skull and was pronounced a dead man by Dr. Edw. Borck. Here, for once, my name appeared correctly, but without my having any hand in the affair.

The case is as follows: The man was completely intoxicated, and, being in the habit of walking through the quarry on a board walk leading to his home, fell while walking down a steep incline, received a slight scalp-wound and went into a profound sleep. That was all. In this condition he was found by the night watchman.

How I happened to discover the facts in the case: First, on seeing an account of the accident in the paper, with my name correctly spelt, about which I had a good laugh to help digest my breakfast; second, after dinner on walking up the street whom should I meet but Mr. N.,

with his head bandaged, looking somewhat ill-tempered. He accosted me fircely, saying: "I was just going to see you; how in the Lord's name could you be so mean as to report me dead? Can't you tell when a man's drunk?" I was greatly astonished as well as amused. After the man finished speaking, I explained to him that I had not seen him at all, as I had not been called. No doubt the message had been intended for me, but did not reach its destination. Although my name appeared correctly in the paper this time, it was all wrong. We parted, he to go and take a drink, and I to go into Hyde Park and laugh off the ridiculous incident.

It annoyed both Mr. N. and me for some time to explain to inquisitive people the true state of affairs: that it was not I, but "the other fellow."

CASE II.—Being in the extreme southern part of the city, a friend of mine introduced to me an acquaintance of his, a Mr. Smith, who said: "I am very glad to make your acquaintance, doctor;" continuing, "you are the man who takes tumors out of a woman's belly—but I am sorry they tried to blow you up with dynamite bombs." I smiled. The gentleman was puzzled, became embarrassed and blushed. Thinking, perhaps, he had made an indiscreet remark, he quickly added: "You reside on ——street, don't you?" "No, sir; you are in error; I live away out in North St. Louis. Here is my card; *that* is my name; enunciate every letter. However, you are correct in one respect: I remove tumors."

The doctor to whom this gentleman referred had an almost similar name, was an obstetrician and removed tumors of another class. Mr. Smith was not acquainted with either of us except by reputation.

CASE III.—At another time I was introduced to a stranger who, in proffering me his hand, said: "I am very sorry to hear that you lost your son." "Many thanks for your sympathy, I never experienced the joy of being a happy father," I answered.

CASE IV.—While I served in the United States Army there was a surgeon on duty at the same hospital by the name of Edward Brooks. Our superior officers were continually making mistakes in our names and persons; orders from headquarters intended for one would be directed by the clerk to the other, and there resulted such confusion that it became necessary to send one surgeon to the field, thus separating two good friends. Here the given name "Edward" caused the confusion; and as the surnames sound somewhat similar there was some excuse, but where the given name is different there should be no excuse, as John and Fred bear no resemblance to Edward.

CASE V.—Now for a highly amusing episode, which will prove interesting to all who know me personally or by reputation, and also by those who remember the facts; but for it to be clearly understood I will give a few preliminary items of myself. I have been a citizen of St. Louis for twenty-six years, and excepting for a short time have resided in North St. Louis. I was the first doctor in the city to give up the work of general practitioner and devote my time exclusively to surgical cases—this was eighteen years ago. I was also the first surgeon to open a private surgical hospital. At that time I was connected with a college (of which I shall at some future time write a history), holding a surgical chair, as well as

that of secretary. I have been a member of the St. Louis Medical Society ever since I came to the city. From the year 1878 and after I devoted my time exclusively to surgery—my reputation as a surgeon increased. I soon became known to the profession throughout this valley. Now, you know what that means. About this time a young surgeon (whom, for convenience sake, we will designate B. A.) located in the city. He was a good anatomist, as well as an elegant, fearless and skillful operator. He became a member of the medical society, and as soon as he showed his ability you may guess what happened—he was treated in the same manner as all previous surgeons who had dared to come. Nothing he did was quite right to any of the other surgeons. Now, it must be supposed that this promising, deserving and ambitious young man allowed his vanity to get the best of him. His cases appeared in the daily papers. It was the envy of all the surgeons who treated all classes of cases—they were alarmed. Certainly it might do the new-comer harm. To prevent that catastrophe it was necessary to consult the paternal influence of the Medical Society (that is all I have to say). Now, this new-comer associated with a very respectable and able gentleman, also a new-comer and a member of the Medical Society (we will call him B. C.), who has since made a good record and is highly esteemed for his knowledge and skill. Whenever the cases of the first gentleman appeared in the dailies, of course that of his associate (who, no doubt, was present to assist him) was mentioned, as well as names of other doctors who happened to be on hand. But, fortunately, or unfortunately, the compositor would invariably spell his name wrong or substitute mine, leaving out the Christian name, and *again* it was the other fellow.

However, this was a delight (gaudimus); for many of the members who believed it begun whispering among themselves. Some were astonished, some pitied me, and others had foreseen it in their minds; however, no one had courage to approach me on the subject. Some of my immediate friends advised me to have the error corrected, but I remained silent and smiled, and said: "It will rectify itself in time." Now the Medical Society would not permit of so valuable a member going astray; therefore, as a guardian angel, it extended its wings, and one of the big frogs or small fish (I cannot recall which) managed to be appointed to bring charges for unprofessional conduct against Drs. B. A. and B. C. Of course, when it came out in the newspapers, the last name was wrong. And now comes the ludicrous. At the next meeting some openly avoided me, others glanced at me from the corners of their eyes. I could not imagine the cause. When we were leaving, after the meeting was adjourned, the Chairman of the (then) Ethical Committee, Dr. K., tapped me on the shoulder, and said: "Dr. Borck, please be at my office on Monday at precisely 2 o'clock." "Certainly, doctor. Have you a case for me to see?" The answer came promptly: "No, it is about the charges against you and Dr. B. A." I gave the self-important Chairman a humorous smile, and said: "Doctor, I am afraid that you can neither read, spell, see or hear well; I know of no charges against me." "Do you mean," exclaimed Mr. Chairman, raising himself to his full height, "do you mean to insult me?" I replied: "No, sir; I meant what I said." Mr. Chairman, becoming more excited: "You MEANT what you said! But I KNOW it is you, for we have no other Dr. Borck in this society." "Correct, sir, and only one Edw. Borck, but you

are a little 'off', I will not say crazy; good-bye." The following Saturday the great trial came off; the reporters were at their post, and the meeting was extraordinarily attended. Dr. B. A. had courage; he was not to be downed; he gracefully resigned his membership, and bade farewell to the society, and has "fared well" ever since. Dr. B. C. was exonerated, and is still a valuable member of the society, and Dr. Edw. Borck smiled, and by this time every member present knew *that* (of which the Chairman was not aware) we had a member with a name apparently similar to mine.

In justice to all, and especially to Dr. B. A., I will state that, since the admirable solution of the above problem, I have been present and also assisted at several of Dr. B. A's operations, and admire his skill, but no names appeared in the newspapers.

CASE VI.—The climax was now reached. I have always been a regular attendant of the Missouri State Medical Association. I was pleased to think that I had many friends throughout the State. At the next meeting, which was held at ——, after the events of the previous drama had closed, I observed that I was treated coolly by a great many of the M. D's. It was not the reception to which I was accustomed. Instead of pleasant greeting, some looked at me askance, others openly avoided me, and there were subdued conversations on my approach. One old friend, who was always glad to see me, and with whom I always enjoyed myself, came up to where I was talking with a few friends; he greeted each one cordially, in turn, and on speaking to me, extended two fingers, which, of course, I ignored. I withdrew to another part of the room, and smiled softly. I afterward learned that the doctor had the code in his pocket. He invited a select few to dinner at his house. One of them exclaimed: "Where is Borck? Let us have him with us." But my old friend raised his hand in admonition, and spoke in this wise: "No, I cannot have that fellow dine with me. I carry a code in my pocket, and I have it in for him." This information was imparted me later by one of the doctor's guests. This doctor was only one of the many who had read the St. Louis papers, and who felt sorrow in their hearts that Borck was one of the black sheep, as was proved by the manner in which I was received. And now comes the laugh. After dinner my friend donned his overcoat, but this time he left the code at home; he had discovered that it was not I, but "the other fellow," and he was the same jovial friend again.

He is a gentleman. He made no reference to his wrong impression of the circumstance, and after shaking hands with me, the crowd drank at his expense. Before leaving the town I took both dinner and supper with my friend.

It takes no little time to correct wrong impressions. However, I feel confident that the surgeons and professors of St. Louis have favored me with their kindness, and assisted to correct prevailing errors. My thanks to all. One would hardly believe that the change of a single letter would cause so much amusement. Daily I receive letters with my name spelled in every manner imaginable, but when the "Edw." is prefixed they belong to me, as a rule. Letters addressed to "C. B.," "A. F. B." or some other initial, and with the surname beginning with "B" and directed St. Louis, Mo., without the street and number, invariably fall to my share, and I have to remail them.

It is not apprehensible why editors of medical journals, who know me personally, should substitute "a" for "o" or leave out the "r," as I have recently observed in several journals, which commented favorably on my writing or reprints. Even the Treasurer of the Medical Society does not get my name straight. A medical journal, of which I am a life subscriber, misspells my name time after time. To-day I received a communication from my instrument-maker, addressed "Borrick;" but enough, for "all's well that ends well"—with a "smile."

CASE VII.—I will close with Case VII. Last winter a large coal wagon, drawn by four horses, stopped at my door. The driver rang the bell, and upon my appearing, politely handed me a ticket, saying: "Here's your coal, doctor; say, but it's cold!" I informed him that I had ordered no coal, and was supplied. He insisted that it was for me; he had known me for years; "Here's the ticket." I looked at it and beheld my name, correctly spelled, but the initials and address were not mine. I called his attention to the fact, and then gentle murmurs of the Lord's prayer filled the air: "— — — — it! I just came that way; it is three miles south." He mounted his wagon, jerked furiously at the lines, and continued his revised version of the Lord's prayer, no doubt, until he reached his destination, to finish with a grand amen. And as the wagon disappeared down the street I smiled sympathetically, and Campbell's "Pleasures of Hope" floated through my brain.

"Who has not owned the rapture-smitten frame,
The power of grace, the magic of a name!"

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STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

CHAPTER XIII.

EROTICISM AND ANEROTICISM.

Question. To what do the terms eroticism and aneroticism refer?

Answer. To the presence or absence of the sexual appetite.

Question. To what deviations from the normal is the sexual appetite subject?

Answer. 1. Excessive desire.

2. Diminished desire.

3. Perverted or peculiar desire.

Question. Where do we look for the causes of these aberrations?

Answer. To the brain, from such diseases as tend to stimulate or paralyze the procreative centers.

2. To the spinal cord, from such diseases or injury as will tend to stimulate or paralyze the reflex centers of generation located there.

3. To the general system, from such diseases as would tend to cause general weakness and debility.

4. To the genital organs themselves, from all diseases and malformations that affect potency in the male, and from all diseases, malformations and peculiarities of development in the female that tend to prevent congestion of the erectile tissues.

5. To other organs in the vicinity of the genital organs, such as the bladder and rectum, from such abnormal conditions as might in a reflex manner disturb the procreative function.

6. To the mind itself, as a result of education, and the suggestions of social environment.

Question. Under what names are cases of excessive sexual desire described?

Answer. 1. Satyriasis in the male.

2. Nymphomania in the female.

Question. What set of causes are mainly responsible for excessive sexual desire?

Answer. Those diseases of the brain and spinal cord as are characterized in their early stages by stimulation of the centers of generation.

Question. What set of causes are mainly responsible for cases of diminished sexual desire?

Answer. Disease and abnormal conditions of the genital organs themselves; reflex disturbances originating in abnormal conditions of neighboring organs, debilitating diseases of the general system, and those diseases of the brain and spinal cord which in their latter stages are characterized by paralysis, either general or local.

Question. What set of causes are mainly responsible for all cases of perverted or peculiar sexual desires?

Answer. These causes are nearly always resident in the mind itself, and are generally the result of strong suggestions made at the period of sexual development. (See chapter on Psycopathia Sexualis.)

Question. What points are of importance in the proper understanding of these variations of sexual appetite?

Answer. 1. Sexual desire may exist without pleasure in its gratification, and pleasure may be experienced during intercourse without any desire being awakened.

2. Sexual desire may be present in the male without potency and this leads to many disgusting deviations from the normal methods of gratification, exhibited by old men and those who have weakened their sexual powers by prolonged excesses.

3. The reference of pleasurable sensations during intercourse has no bearing whatever upon the question of sterility or fruitfulness, either in the male or female.

4. Among the females of the lower animals and among women of most savage and primitive races the sexual appetite exhibits periodicity as to the time of its appearance. During this period the appetite is practically irresistible.

5. Among such animals and among such tribes of people the sexual desire of the male is not exhibited except under the stimulation of the presence of a female with the periodic desire upon her.

6. Castration, subsequent to the full development of the sexual function, generally has but little effect either upon male or female as to their sexual desire, though it usually renders the male impotent eventually. In the female the desire is often increased for a time, especially when the cause of previous aneroticism resided in the ovaries.

7. The large majority of cases of aneroticism occur in women and are due to such abnormal conditions of the sexual organs as follows:

a. Rupture of the perineum from previous parturition.

b. Profuse leucorrhœa, either vaginal or cervical.

c. Persistent tough hymen.

d. Dyspareunia.

e. Adhesion of labia minora to the clitoris, preventing its proper erection.

8. The condition of aneroticism in a married woman generally produces dyspareunia eventually.

9. Aneroticism is frequently the immediate cause leading to domestic infelicity, which may end in divorce.

10. The courts do not recognize sexual frigidity as an excuse for divorce, but when this exists it is very easy to bring about such statutory grounds as will render marriage intolerable and which the courts cannot overlook.

11. Connubial affection has a great deal to do with the normal eroticism and when this is absent sexual desire often vanishes with it.

12. The refusal of the wife to permit the reasonable sexual approaches of the husband without good cause may be treated by the courts as equivalent to desertion.

CHAPTER XIV.

DYSPAREUNIA.

Question. What is Dyspareunia?

Answer. Painful coition, due to diseased or abnormally placed sexual organs.

Question. What diseases cause dyspareunia in the male?

Answer 1. Gonorrhœa in the stage of cordee.

2. Prostatis.

3. Inflammation of seminal vesicles.

4. Phymosis and paraphymosis.

5. Cicatrices from short circumcision.

6. Ulceration from chancroids or cancer.

7. Warts and herpetic eruptions about the glans or prepuce.

8. Orchitis and epididymitis.

9. Vesical and renal calculus.

Question. What diseases cause dyspareunia in the female?

Answer 1. Contracted or disproportionate vagina.

2. Versions, flections, prolapsus, and inversion of the uterus, especially when the uterus is filled by inflammatory adhesions from pelvic peritonitis.

PUBLISHER'S DESK.

Pain and Rest in Diphtheria.—Rest is one of the sweetest words in our language, and in the management of no disease is this more true than in diphtheria. In keeping with the experience of Prof. T. E. Murrell, Ex-Vice-President of the American Medical Association, and Dr. Pollack, of St. Louis, who have found antikamnia valuable as a reliever of the pain of nocturnal earache, it has also been found of great value as a sleep producer in these cases. Given in doses of two and a half to five grains every two to four hours, there is no depression nor have other than satisfactory results been obtained. Dr. Eggers, of Horton Place, St. Louis, reports in the treatment of an attack of diphtheria in a member of his own family, that, to obtund the pain consequent upon the injection of antitoxine-serum, which ordinarily lasts from three to four hours, he exhibited antikamnia internally, securing relief in a few minutes. In the treatment of any neuroses of the larynx, coughs, bronchial affections, la grippe and its sequelæ, as well as chronic neuroses, clinical reports verify the value of codeine in combination with antikamnia, the therapeutical value of both being enhanced by combination.

An Assimilable Form of Iodine.—Certain alkaloids act in a somewhat similar manner to the iodides, and their action is, if anything, more permanent. They possess special power in stimulating the glandular system, both to secretion in the case of special iodines and to absorption in a case of the lymphatics. The Henry Pharmacal Co., of Louisville, Ky., have combined the most efficient of these alkaloids in the formula of their tri-iodides. By combining these alkaloids with iodine in the form of hydriodic acid they have secured an assimilable form of iodine in the combination—the hydriodates of the vegetable alkaloids, colchicum, decandrin and solanin. They claim that in the hydriodates of these valuable vegetable alkaloids they have a remedy which affords the specific alterative action of iodine without such disagreeable results as the iodinism sometimes produced by the ordinary iodides of the alkaline bases. It has been questioned whether their formula of the tri-iodides contains an appreciable quantity of iodine in an available form. Regarding this point they state that when the tri-iodides are given, the characteristic action of the iodine upon, and its presence in the secretions, is evidenced by chemical tests and the peculiar metallic taste produced by the internal administration of iodine. It is also shown in certain sensitive individuals by slightly marked eruption of acne, characteristic of the constitutional effect of iodine. This, they state, is in no instance as marked as when the iodide of potassium or sodium is administered, yet is sufficiently distinct to prove the claims made: that the preparation acts in a large measure through its containing iodine in an assimilable and active form. It is believed that, grain for grain, the hydriodates are more active in their effect upon the system as far as the iodine is concerned than are the ordinary preparations of iodine in the form of iodides.

The Sulphate of Quinacetine bears a close resemblance to the sulphate of quinine, slightly astringent, bitter, insoluble in water, slightly soluble in simple elixir or spiritus frumenti, etc. Dissolves readily in all acid solutions forming freely soluble bi-salts, which, like the sulphate, are incompatible with other metals, metallic hydrates and the carbonates. It is a powerful antipyretic and anodyne.

Dose: It is prescribed in dose from 5 to 15 grains and displays a powerful calming influence upon the system, which is manifested in its property to eradicate pain and allay nervous excitability and in reducing abnormal temperature of the body characteristic upon certain pathological conditions.

See the new advertisement of Theo. Metcalf Co. in this issue.

Enuresis Nocturna.—Dr. A. B. Wilson, Buffalo, N. Y., writing, says: "This was a case of a girl 19 years of age suffering from irritable bladder, and who had wet the bed nightly from childhood. She was compelled to avoid company and the usual social life on account of frequent micturition. One bottle of Sanmetto overcame the irritation to such a degree that for the first time in fifteen years she passed a night without wetting the bed. She is still using the remedy in hopes of complete recovery."

Failure Owing to Substitution.—I have read and watched what has been said of sanmetto, and often wondered why I did not get any results from it in my practice. When I received my September *Medical Brief* and again reading of the grand results advertised therein by the Od Chemical Co., I went over the ground to try to find out the trouble. To my surprise I found that all my patients had been furnished and were taking Palmetto where Sanmetto had been ordered. I intend to watch this matter more closely.

P. J. GERLACH, M. D.

SPOKANE, Wash.

Campho-Phenique Powder.—Dr. T. M. Baird, of the Medical and Surgical Staff, of the Hot Springs, Ark., City Dispensary, writes:

"For the past year I have used campho-phénique powder as a surgical dressing, in private and dispensary practice, and consider it the best antiseptic and germicide on the market. It is put up in the most elegant and convenient manner imaginable, and is in every way satisfactory."

San Antonio, Tex., the City of Missions.—Printed in two colors, with an exquisite lavishness of type and view, this beautiful brochure tells San Antonio's history from its occupancy by the Spanish in 1715 to the present time. Much care was exercised in the compilation of the data of this work, and the illustrations are particularly noticeable for their accuracy of execution and detail. Eighty pages are contained in telling the City of Missions' story. Copy of same can be procured free of cost by addressing agents of the company, or H. C. Townsend, General Passenger and Ticket Agent, Iron Mountain Route, St. Louis, Mo.

Low Rate Excursions.—The Missouri Pacific Railway and Iron Mountain Route will sell Home-Seekers' Excursion Tickets, November 3rd and 17th, and December 1st and 15th, to certain points in the West, South,

Southwest and Southeast at half-rates (plus $2.00) for the round trip. Descriptive pamphlets on the various States and full information can be obtained by addressing company's agent, or H. C. Townsend, General Passenger and Ticket Agent, St. Louis, Mo.

Neuralgia.—The varieties of neuralgia are almost as numerous as the nerves of the body. Wherever there is a nerve there may be pain. In almost every form Neurosine will be found to give prompt relief, and if persevered with in the interims of the attacks the splendid effects of the bromide of zinc and cannabis indica as permanent nerve tonics and other bromides as alteratives may be confidently expected.

Hysteria.—The manifestations of hysteria are so infinite in number that Tanner has well said: "Hysteria simulates almost every known disease." It so often exists without any pathological lesion and persists after cure of the lesion that the practitioner has no resource but the well-known antispasmodics, anodynes and nerve tonics, which should only be taken at his direction and which alone in many cases intervene to save the sufferer from the too common resort to opiates. Here Neurosine not only gives prompt relief but offers the best means of cure.

An Anti-Fat Which Produces Flesh.—There are a few considerations which, in my opinion, should not be ignored in using Phytoline. I was converted to the use of this valuable remedy several years ago by its successful results in my own case, and, as the old saying goes, "one swears by the bridge that saved him." Since then my experience has been a varied one. I have not always achieved the same results in all my cases. Individual susceptibility to the action of the remedy differs. One case will respond promptly, the amount of absorbed and eliminated adipose being in some cases as high as a pound a day; in others a steady decrease of no more than a pound a week would be maintained. Then, again, some would not respond for four or five weeks' consistent treatment, at the end of which time they would begin and lose weight slowly, as a rule, but sometimes quite rapidly. Whenever a patient fails to respond to treatment after a week's treatment I examine the Phytoline carefully to see if there has been any change in its condition. It did not take me long to learn that it should not be put into uncolored bottles, for the chemical rays of light decompose it and cause precipitation of the active properties. This is always preceded by a change in the color of the medicine, the change being from the beautiful characteristic color of poke-berries to a dark, cloudy, reddish-brown. When this property develops the therapeutic activity of the drug declines in direct proportion to the degree of change. This is only a temporary disadvantage, as you have always been ready to replace the deteriorated with the fresh preparation.

I had one case that was peculiar. It was Mrs. C., a lady of about sixty-five years of age. She had been increasing in weight, though not apparently getting any stronger. Her increase seemed to be entirely in the abdominal region and lower extremities. She had had rheumatism occasionally, and was being troubled with a little difficulty of the heart. This was not a true case of obesity, but rather one of rheumatic heart complication. I knew that the anti-rheumatic properties of Phytoline could meet the indications,

and I gave it to her with the injunction to take ten drops in water half an hour before and one hour after meals. She began to improve promptly. The swelling of the extremities subsided in size, her heart's action became easier, her appetite improved, and *she took on flesh*—not *fat*, but good, solid muscle. She got well, and has not been troubled since, although no one can expect a rheumatic heart to get well if there is any deficiency of the valves.

Should you at any time require a short report or two from my case record-book, just let me know and I will take pleasure in sending them to you.

P. A. LOHMAN, M. D.

Mailed Free to Physicians.—A reprint of how I treat with antiseptics respiratory diseases, viz.: *Catarrh*, *throat*, *bronchial*, *asthma* and *lung diseases*. The medicines can be carried to the parts affected. Over 800 cases treated, and more than 95 per cent. successful. Address

R. C. COTTINGHAM, M. D.,
513 Reed St., Moberly, Mo.

RUBY CAPSULES.

GERMANTOWN, MD., February 16, 1896.

The Hall Capsule Co., Cincinnati:

GENTLEMEN—I have just received the Ruby Capsules, and shall use them instead of the white gelatine, as they are less objectionable for many reasons. They are something new and their color very attractive. I consider them *par excellence* for the administration of Quinea-Sulph.

The Anderson Vaginal Capsule cannot be excelled.

Yours very truly, I. NEWTON SIMPERS, M. D.

We refer our readers to the advertisement of palpebrine, which appears for the first time in this number. This product will be found useful in the following forms of external eye diseases:

Simple, acute, catarrhal, venereal, strumous and chronic conjunctivitis, acute and chronic blenorrhea of the conjunctiva, inflammation of the lachrymal sac, blepharitis, etc.

Palpebrine is indicated in all cases where an accurate antiseptic solution of known quality and quantities are required.

Palpebrine is superior in its action to the remedies now in use. It contains all the constituents of aqua conradi, as recommended by the renowned Professor of the Vienna University, Ferdinand von Arlt. (See "Clinical Studies on Diseases of the Eye," by F. Ritter von Arlt, translated by L. Ware, page 23). But to these are added a number of other agents which will prove palpebrine to be of much greater value and give it a broader field for action.

I am pleased to say that the most excellent preparation "seng" has given me complete satisfaction. I can sincerely recommend it in all cases where such a delightful as well as efficacious remedy is indicated. It will afford me pleasure to speak of its merits on all suitable occasions.

Chelsea, Mass. GEORGE W. BABCOCK, M. D.

THE TRI-STATE MEDICAL JOURNAL

By JAMES MOORES BALL, M.D.

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Vol. III. ST. LOUIS, MO., DECEMBER, 1896. No. 12.

ORIGINAL ARTICLES.

REPORT OF A CASE OF EXTRA-DURAL ABSCESS OF PROBABLE LONG STANDING—OPERATION—RECOVERY,

By EMANUEL J. SENN, M. D.,

Instructor in Surgery, Rush Medical College, Chicago.

JANUARY 26, 1896, I was called to see a young man 16 years of age. I found him in bed and suffering great pain. Upon examination I noticed edema in the mastoid region of the right side. It was not the conventional edema that one finds as a rule, but the prominent portion of the swelling was in the cerebellar region, considerably posterior to the mastoid process, and where the area of tenderness was most marked. He had a temperature of 103 with a corresponding pulse of 120. The headache began about a week before I saw him and continued until it became well nigh unbearable. It radiated to the frontal region and even to the other side of the skull. The hearing was slightly impaired, but the tympanum was intact and I was informed that he never had any discharge from the ear. The pupils were greatly dilated but reacted to light. As regards his per-

sonal history, which I elicited from the parents, I ascertained that he enjoyed good health until five years of age, when, while at play, he was hit on the head in the upper anterior parietal region with a piece of wood and was subsequently unconcious for two or three hours. Ever since that time he has suffered severe exacerbations of acute pain in the head. I made a diagnosis of extra-dural abscess, not particularly mastoid disease, but probably of aural origin. I had him sent to St. Joseph's Hospital and operated on him the same day. I did not make the usual incision right back of the ear but made one more posteriorly, reflected the muscle forward and chiseled into the mastoid antrum. To my surprise, I found no sign of inflammation whatever in the antrum. I next exposed the mastoid cells, where I found the same condition. I then reflected the skin posteriorly, lifted it up and opened the skull about an inch farther back. The dura was congested but there were cerebral pulsations and no sign of pus. The internal table was carefully separated from the dura with a dural separator, when suddenly there was a flow of about two drachms of pus from the wound and coming from a posterior direction. The pus was not fetid but it was the dangerous variety described by Bohm, in which there is no saphophytic infection. I resorted to both tubular and capillary drainage and partially closed the wound. Pain continued for twenty-four hours after operation, when it ceased and the patient made an uninterrupted recovery. He left the hospital seven days after operation and has remained well up to the present time.

The case is interesting from an etiological standpoint. Was the extra-dural abscess in the posterior fossa due to a pre-existing inflammation of the middle ear or was it due to the trauma or to both? In reading the interesting work of Macewan, we find that encysted extra-dural or cerebral abscesses can remain for years without causing any trouble whatever, and it only remains for some secondary cause to develop to set the microbes into action. The abscess in this instance might result in one of two ways, either by the blow received in the upper anterior parietal region, causing a fracture by contre-coup of the petrous portion of the temporal bone, with a subsequent pyogenic infection, or else a blood-clot may have formed at the base of the brain and caused pain by pressure, probably also interfering with the patient's hearing and later became the culture medium for microbes from the general circulation. The condition was either due to one of those factors, or it is probably one of those cases of inflammation of the middle ear whichr emains in a latent condition until under some exciting stimulus, as, in this case, the injury, the activity of the microbes is renewed and there consequently develops a septic thrombosis of the sigmoid sinus and causes localization in the posterior fossa. I am inclined to one of the former theories for the simple reason that the patient has had no trouble since the time of operation, denoting a circumscribed abscess. If he had had a septic thrombosis of the sigmoid sinus or any of the sinuses of the brain, we would not have had such a rapid recovery. It is encouraging, indeed, to simply evacuate an abscess in this region and have such definitive healing.

31 Washington street.

Oak Grove Sanitarium.—This beautiful home for the care of insane patients has been re-opened with Dr. Frank Parsons Norbury of Jacksonville, Ill., in charge.

ABNORMAL ASCENDING PHARYNGEAL ARTERY,*

By OZIAS PAQUIN, M. D., of St. Louis.

MR. D. C., 44 years of age, came to consult me concerning his ears, stating that he was partially deaf at times, and that he had had a constant and intense roaring in his right ear for the last seven years. An examination of the ear would lead one to pronounce his case otitis media. As it is customary, however, to go through a certain routine examination with every patient who may present himself to me, an examination of the upper air passages revealed a complete occlusion of both right and left nose by an unknown number of mucous polypi. Patient did not complain of these, however, stating that he had not used his nose for twenty-eight years. An examination of the pharnyx presented a glistening, varnish-like surface (pharyngitis sicca) characteristic of atrophic pharyngitis.

On the posterior and external, behind and inside of the posterior pillars, I found a very voluminous vessel, covered with mucous membrane, presenting an arterial beat. The pulsations were clearly defined, and would give the impression of a vessel as considerable as the radial artery. The vessel is directed from below upwards, and from out inwards, and is lost in the vault of the pharynx. The patient did not complain of this abnormal condition and was completely ignorant of anything abnormal.

The question arises: What is this pulsating vessel? Is it arterial or venous? Can it be the result of compression somewhere exercised on an arterial branch and determining a supplementary circulation? I arrived at the conclusion that I am dealing with a branch of the external carotid, abnormally developed without lesion with neighboring vessel to explain its existence.

The pharynx receiving its blood supply from a branch of the external carotid (the ascending pharyngeal) and a branch of the facial (the ascending palatine) it can be the question of the one or the other of the arteries only, so one can nearly settle the question by affirming that the ascending pharyngeal can be distinguished from the other branches of the external carotid by its vertical direction.

By consulting authorities concerning the case it appears to me that such cases are uncommon, judging from the comparatively small number consigned to our medical literature.

Here is the limited information which I have been able to collect:

Upon two occasions, distant a few years, J. W. Farlow has related cases of this character observed on the living subjects, thirteen in number. The first eight observations were inserted in the Boston *Medical and Surgical Journal*, July 3, 1890.

Gelle has related a case of arterial pulsation in pharynx in the *Journal of Laryngology* (London, August, 1892). The details of these cases are wanting—that is, for that of Gelle and the first eight of Farlow.

As for the last five inserted in the annals of diseases of the ear and larynx here is a short summary:

Case 1. A girl 13 years old, suffering from nasal catarrh and atrophic

*Read before the St. Louis Academy of Medical and Surgical Sciences.

pharyngitis; the ascending pharyngeal abnormally developed on both sides; pulsations stronger on left side.

Case 2. Girl 18 years old, nasal atrophic catarrh; exaggerated development of ascending left pharyngeal.

Case 3. Girl 25 years old, catarrh, nasal-pharyngeal atrophy, voluminous pharyngeal artery; pulsation on both sides.

Case 4. Woman 20 years old, atrophic rhino-pharyngitis; a large pulsating vessel observed in posterior part of the pharynx without indication as to what concerned the side afflicted.

Case 5. A girl 4 years old, atrophic nasal catarrh; a large vessel observed to the left; the cervical ganglious are hypertrophic.

In grouping these five cases to the one related above we find that all observations are connected to patients affected with atrophic pharyngitis.

Do we see here a relation of cases in fact, or simply a coincidence? I can not form an opinion. It is very possible that the abnormality in question is more common than one would infer from the limited number of cases reported.

That this abnormality is more easily discovered in cases of atrophic pharyngitis is apparent because of the thinness of the mucous membrane in those cases, and also from the fact that the membrane is glistening and reflects the light more strongly.

In the absence of atrophic pharyngitis the arterial pulsations can pass unobserved, being hidden under a thick layer of mucous membrane or by the development of adenoid tissue.

If atrophic pharyngitis is present in all cases of ascending pharyngeal dilation, the dangers which might result from this abnormality become modified, but if not, then we are confronted with more or less danger in operating in a pharynx which is supplied by such an artery.

But it is known that hypertrophic adenoid vegetation does not exist in subjects suffering from atrophic rhino-pharyngitis, so that the dangers of this abnormality are again modified, but it is also possible that these arterial dilations are more frequent than we think for, and the great number of hemorrhages following operations for adenoids, on the uvula, and on the palate, and tonsils may result from such.

It is also possible that isolated branches of the ascending pharyngeal are abnormally developed. Prof. Delavan, of New York, quoted a case which was fatal from uvulotomy.

It appears to me from the grouping of these facts that to practice operations in the pharynx one is always exposed to possible abnormal arterial disposition. So, from this fact, the necessity of always exploring the pharynx very carefully before operating is strongly emphasized, and in all cases where nothing appears abnormal about the distribution and the volume of the branches of the external carotid let us not forget that abnormal conditions may exist anyhow and waiting to give us some very deplorable surprises.

I have not treated this man's ears, but proceeded to remove the mucous polypi as speedily as was deemed expedient. The treatment for mucous polypi consists of complete abolition by extirpation or destruction by injection or local application of nitrate of silver, chromic acid, tincture of chloride of iron, etc., but I have never gained any very satisfactory result short of extirpation by the cold snare method. At first sitting I removed

seven polypi, and when the patient visited me the second time I was very agreeably surprised to learn that a very marked difference had taken place as to the intensity and volume of the vessel in question. The patient also stated to me that his hearing had improved, and that the roaring in his right ear was not so acute or perceptible. I removed eleven polypi at this sitting, and so on, until the entire lot, thirty-one in number, were removed, the roaring gradually disappearing and the hearing again became perfect; likewise the vessel in question was reduced or modified to at least one-fourth the size it was when first discovered. After a short course of treatment, directed to some of the pedicles in the way of the artery, and some palliative treatment, the patient was discharged. He has made me bi-monthly visits since, but so far there has been no recurrence of the trouble.

3536 Olive street.

TREATMENT OF VARICOCELE,*

By GEORGE M. PHILLIPS, M.D., OF ST. LOUIS,
Professor of Genito-Urinary Surgery in the Barnes Medical College.

HAVING decided at a late date to accept the courtesies of your Academy by appearing before you in the capacity of an essayist, it became necessary to cast about for something interesting to offer. Through the mail a few days ago I received this communication, which I here submit, and from which I find a subject:

ST. LOUIS, MO., October 13, 1896.

Dr. G. M. Phillips, 406 Commercial Building, City:

DEAR SIR—Having heard of you favorably through one of your students quite often, I thought I would write to you. I notice that you lecture on varicocele among the complaints that you treat, so I would like to have you state whether you have had much experience in varicocele cases, and what your mode of treatment is. I have used treatments constantly for the last seven years for nervous debility, varicocele, etc., but it seems like I can't get any treatment that will improve my constitution. I have what some call spermatocele. The veins in my scrotum are very slightly affected; in fact, you have to feel very close to detect it, but the vein on the left side which runs up in the groin has no valves in it and is clotted and twisted just as far up as I can feel it. It hangs right against the spermatic cord. I have used washes and lotions, have a good electric belt, which I paid $30.00 for. I have taken a three months' course from the World's Dispensary and courses from five other medical institutions. I have taken fourteen bottles of Testine. In fact, during the past seven years, I have received varicocele treatments of every description, but nothing will change the condition of the veins.

My nervous system has been in an exhausted condition for several years but I am up and around here all the time, but I have not felt well enough to go down town for two years. So, for that reason I write to you, and would be pleased to learn what your method of treatment is, and how much you will take to guarantee a cure.

My nerves are too weak to stand an operation. I can't come down to see you and it would not do for you to come to the house, if they know you are a doctor; so you will have to treat me by mail. I can pay you $15 per month, if you can guarantee to cure me. I wish you to come to the house to see me about this trouble. Hoping to hear from you and that you will send me your pamphlets, and promising to pay you for your trip if you come to the house, I am, very respectfully, L. F. ———, Labadie avenue, City.

I visited this man and found him ill. I found nothing suggestive of a serious pathological state so far as it was possible to decide from this physical examination. My subject, then, will be in answer to this communication, or, rather, what advice should be offered in such situations. The subject of varicocele, in its broad sense, is far too important to be but touched and

*Read before the St. Louis Academy of Medical and Surgical Sciences, October 16, 1896.

passed upon, as would necessarily be the circumstance, should the attempts be made to present it in a paper of digestible proportions. It is a condition too universal in its distribution, too wide-spread in its display of symptoms, and too potent a factor in the dissemination of misery and discontent. The surgical aspect will be given prominence in this presentation of the subject. In this paper my individual conclusions, based upon personal observation, rather than the information offered through the literature of the subject, will be the other conspicuous feature. Not within itself is varicocele a serious affection; most of us are slow to believe that on its account alone will life be appreciably shortened or usefulness greatly limited. Many do not appreciate its prevalence and attach but little consequence to its existence. This dilated, tortuous mass of distended vessels, known as the pampiniform plexus, found in at least 8 per cent. of all male adults and almost exclusively in the left side, has an anatomy that is rather well understood, and one that is peculiar to itself.

The bearing of this condition upon the eligibility of applicants for military and public service is worthy of notice. The causes leading up to its occurrence display a great variety of opinion, and within themselves would afford abundant material for a chapter. Its bearing upon sexual disquietude is well recognized but imperfectly understood. Its pathology is almost a blank and, at best, but feebly explains the condition as we are accustomed to see it. Its symptoms are very complex, so constant and so inconstant, unnoticed in one, presenting great physical discomfort in another, what we interpret as real pain here and what we take to be hypochondriasis there; everything, from a condition so mild as to escape our notice, to a disease extreme; a subject full of interest, one full of science, a field rich with rewards, but awaiting developments. Convinced, as I am, of an intimacy of connection existing between the genital tract and the moral and intellectuality of man, I firmly believe that a pathological state will be found that will be fully responsible for these exhibitions; though unable here to set to words my views. But, to the point: How shall such a letter as this be answered, or, rather, how shall a condition be met? Will we do what has been done, and do that which it is usual to do in instances like this? Will we say: "Now, young man, keep in good cheer, free your mind of all burden in this sense, engage yourself in pleasant occupation and be assured that no harm will come to you and that time alone will right you?" Shall we undertake to convince a man like this that there is no pain, that there are no symptoms, that he has nothing as a foundation for his discomfort? In the face of his weakness, his depression and alarm, and in the face of the gradual atrophy of the testicle, of which he is quite aware, shall we force him to either resort to the quack or continue his relations with him? Have we a moral or professional right to deal with such conditions in such a manner? Or should we be encouraged in our efforts to impress these patients in this way and insist that they make an effort to do our bidding, when it is recognized by many of us that it is a rare exception indeed that such a course can be accepted and adopted? I hold that the usual disposal of such cases is unjust, unprofessional and, in many instances, cowardly.

I believe it is unjust to advise any trusting, suffering patient in a way that he cannot engage himself, and in a way that can promise so little. Be his trouble, in the esteem of a given practitioner, real or fancied, he is

worthy of consideration and should have some rights as a man. It is unjust to say that he does not suffer when our knowledge is so incomplete, and unjust to encourage a further atrophy of the part by denying him the proper relief. I believe it is unprofessional to tempt these miserable, helpless and unfortunate victims to rely upon the quack for relief, thereby signing away all right to manhood, moral, social and physical individuality. I believe it cowardly to temporize and trifle with an affection where one is incompetent to correct it. I believe it cowardly to advise of the great danger of such an operation and of the uncertainty of its effects, when unfamiliar with the technique and unacquainted with modern results. I believe, then, an operation is in order, if for no other reason than to shield this class from the quack. I believe it is right to operate where there is pain or discomfort, although we may fancy the pain is imaginary. I believe it is proper to operate where we have sexual disquietude and apprehension. In my estimation it is proper to operate that we may prevent further atrophy of the testicle and restore it to normal tone. It is proper to operate for a tumor, weighty and uncomfortable, without additional symptons, but merely on account of its size. I believe it is proper to operate under any and all circumstances, where there is varicocele that has been discovered and where its presence has been felt to an extent that treatment has been asked for. I hold many reasons for this position. I know of nothing in the form of a treatment that may be relied upon except an operation. I appreciate the difficulty of instituting and maintaining sexual hygiene. I appreciate the power of the reflexes originating in this locality and their influence over the well-being of man. I thus broadly advocate an operation in all situations (with rare exceptions, for the reason that the results are brilliant, the cure is speedy, it is attended with little expense of time or comfort and with minimum danger).

I entertain serious objections to the operation of Keyes (that of subcutaneous ligation). I believe that this operation is uncertain, unsurgical, and dangerous; withal, it is an operation in the dark and one that promises little. There is a variety of operations that are good. The one most frequently resorted to by myself is Bennett's, with some modifications, which, briefly described, is as follows: The patient, surgically prepared, is placed in a semi-recumbent posture, the scrotum is seized with the left hand, in such a manner as to make prominent the structures to be dealt with, a few strokes of the scalpel applied to the anterior aspect of the tumor, beginning immediately below the external abdominal ring, continuing downward for an inch and a half, thus bringing to view the sheath enveloping the veins; here with an instrument of my own, being little more than a probe-pointed aneurism needle bent at right angles and curved upon itself, is armed with a double gut ligature, surgically prepared, and passed beneath this bundle of vessels and above the vas, vas deferens and artery. The ligature is here divided in the center, making two, one of which is adjusted at the nearest convenient distance from the testicle and secured, the other at the upper angle of wound similarly, having between the two points as much of the plexus as is necessary to remove, allowing a one-fourth-inch stump on either end. With both ends in this way secured, and the ligatures of abundant length, the bundle of tissue is divided about one-fourth inch anterior to the ligatures in both situations; here the free end of one part of the ligature is threaded upon a needle and passed through

its stump, say from left to right, while the opposite is done upon the remaining stump. I then approximate the ends by engaging the sutures of the opposing ends with its fellow, then shortening the cord. The operation is completed by cutting short the ligatures, cleaning the wound in a surgical way and closing up with a continuous suture. If, however, we have a redundancy of the scrotum (as is usually associated with varicocele) the operation as above, in all essentials, is done together with resection of as much scrotal tissue as the condition warrants. My answer to this letter and my recommendation in all such situations are here set forth. I will deal with this case in this manner, and when I have done so I will confidently expect him to recover promptly.

SOME REMARKS ON FORMALIN,*

By JAMES MOORES BALL, M. D., of Saint Louis,

Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons.

FORMALIN is a 40 per cent. aqueous solution of formaldehyde. Formic aldehyde is a gaseous body which was discovered in 1863 by Hoffmann, while passing methyl alcohol and air over hot platinum. It is one of a series of chemical compounds which differ only in the amount of oxygen they contain.

As a preservative formalin is of great value. Its advantages have been pointed out recently by Dr. H. A. L. Ryfkogel,[1] Curator of the Museum, Medical Department of the University of California. Comparing it with alcohol he concludes that:

"(1) Alcohol by withdrawing the water from a specimen causes great shrinkage. Formalin, acting only by changing the protoplasm, causes very little shrinkage.

"(2) Alcohol dissolves out most organic pigments and so greatly alters the appearance of objects. Formalin does not do this to any extent.

"(3) The price of alcohol is nearly $3 a gallon; that of 1-per-cent. formalin solution about 30 cents.

"(4) Alcohol is very inflammable. Formalin, being a watery solution of a gas, is not so.

"(5) Alcohol, by changing mucus or slime to white strings, spoils the appearance of objects covered by this material. Formalin, by leaving mucus and slime transparent, is free from this objection.

"The objection to formalin is the irritating quality of its vapor when inhaled. This is, however, not troublesome in the solutions ordinarily employed."

The powerful germicidal action of formalin was first noticed by Löwe in 1888. In this respect formalin possesses decided advantages over many other antiseptics. It is non-toxic and is rapidly diffused through tissues both living and dead. It is far superior to the perchloride of mercury,

* Read before the St. Louis Medical Society.

[1] *Medical Record*, August 8, 1896.

which possesses toxic properties and has the disadvantage of coagulating albumen.

The germicidal properties of formalin, its diffusibility and ease of application, with the absence of toxic properties, led Professor Leber, at the Ophthalmological Congress held in Edinburgh two years ago, to introduce it as a valuable addition to the list of agents used in ophthalmic practice. During the past year formalin has been used by many English and American oculists in the treatment of infections of the cornea and conjunctiva.

Mr. Mackenzie Davidson, of Aberdeen, in the *British Medical Journal* for January 18, 1896, has given his conclusions regarding the value of formalin in the treatment of hypopyon keratitis. He has used it extensively in cases in which there have been corneal ulcers and abrasions, and also in cases of hypopyon ulcers. He finds that a watery solution of formalin in the strength of 1-2,000 to 1-3,000 is the most serviceable, and this he applies freely every hour, and thus sums up his views: "The usual antiseptic applications so often fail to benefit such injuries that recourse has to be had to the electric cautery; and if this is to be thoroughly effectual, the focus must be burnt out completely, and consequently more or less sound tissue is destroyed as well; and, while the scar left is wonderfully slight, still no one can doubt that if the process can be at once arrested by local antiseptic applications, the results are even better. My experience warrants me in claiming that in a solution of formalin 1-2,000 or 1-3,000, applied freely every hour, we have such a substance. Used in the same way or less frequently, as experience may dictate, it acts admirably in abrasions of the cornea which have become septic and infiltrated, and might or might not go on to suppuration. Another great advantage is that the severe pain, so characteristic of hypopyon ulcer, is speedily relieved by the formalin solution, which, further, is non-poisonous, and produces no irritation in the strength mentioned. The directions I give to the patient are to lie down, and then with a dropper, or, failing that, with a teaspoon, the formalin solution is poured gradually into the eye, while the eye is kept winking, so that its surface will be freely bathed. This is done hourly during the day, and at night should the patient happen to awake. Atropine is only used to keep the pupil sufficiently dilated in these cases. Since using formalin in this way I have not had to use the electric cautery once."

Burnett, of Washington, has obtained excellent results with formalin in the treatment of corneal ulcers of an infective type. He uses, to touch the ulcer daily, a solution of 1-200 to 1-500, and for general use as an antiseptic a collyrium of 1-1,000 or 1-2,000. He has also in a few cases cauterized the ulcer with 1-100. In one case of serpiginous ulcer he used formalin and nothing else, and found the result more satisfactory than that obtained by many of the older methods, He has had very beneficial results in the milder forms of purulent and muco-purulent conjunctivitis, but in the more severe cases he uses the weaker solution of formalin as a lotion in addition to nitrate of silver. In acute catarrhal conjunctivitis it has acted most promptly when applied every four hours in the strength of 1-1,000 to 1-2,000. Also in chronic conjunctivitis with diminished secretion he has usually had good results. In ulceration of the edges of the lids it has acted well, and for such cases the strength which is used must be regulated by the desired

effect, 1-100 being a mild caustic and 1-2,000 a stimulating lotion. He finds it especially valuable in indolent ulcers of the skin with hard edges. As a disinfectant of instruments it possesses the great advantage of not dulling the edges of the knives. It can also be used to wash out the conjunctival sac previous to operating, though it has the drawback of causing a slight burning sensation when thus applied.

At the recent meeting of the British Medical Association the pathology of hypopyon keratitis was the subject of a lantern demonstration by Professor J. P. Nuel, of the University of Liége. Since the origin of the pus in hypopyon has been a long disputed question, the views of this observer are worthy of consideration: "Preparations were exhibited showing, among other things that, (1) the pus in the anterior chamber does not proceed from the corneal ulcer; (2) the pus does not proceed from the anterior face of the iris, at least not habitually; (3) on the contrary, at the outset of the hypopyon, the pus is absorbed by the mouths of the lymphatic spaces of the iris, which are situated on the anterior surface of the iris; (4) in the ulcers serpens of Sæmisch, even when it is curable without perforation, one can see the pus collect along the ciliary body without penetrating into the vitreous, except at the ora serrata. Pus can also collect behind the lens between it and the vitreous. (5) The pus of hypopyon and that which collects behind the iris probably comes from the region of the canal of Schlemm." At the same meeting Uthoff and Axenfeld, of the University of Marburg, presented a paper on the pathological anatomy and bacteriology of septic purulent keratitis. They said: "We have come to the conclusion that the hypopyon originates in the iris and ciliary body."

The pus originating so deeply, necessitates the employment of a diffusible agent. Clinical experience has shown the great therapeutic value of formalin in hypopyon keratitis—due to the diffusibility of this germicide. As to the value of formalin in specific purulent inflammation of the conjunctiva there is no longer any doubt. The recent papers of Burnett and Belt, of Washington; Oliver and Hansell, of Philadelphia, and others, can leave no doubt as to the value of formalin. My own experience, limited to only two cases, is too small to justify the drawing of conclusions, but it certainly seems to me that the formalin treatment diminished the discharge, rapidly lessened the swelling of both palpebral and ocular conjunctiva and thus materially diminished the danger of corneal necrosis.

The first patient, kindly referred by Dr. Rholfing, was a ten-day-old infant, who had been the victim of purulent ophthalmia (both eyes) for one week. There was great swelling with abundance of pus without corneal involvement. In addition to frequent cleansing, formalin, 1-1,500, was dropped into the eye every four hours. The discharge rapidly grew less, the swelling subsided and the child made a rapid and perfect recovery.

The second patient, referred by Dr. Carl Pesold, was seen by me on the third day after birth. Pus was welling out of each eye, the corneæ were hazy and the swelling was great. The nurse was ordered to cleanse the conjunctival culs-de-sac every half-hour, day and night, using boric acid (gr. x to ʒi.) Formalin was used as in the first case. The recovery was slower, each cornea presented a small superficial ulcer which healed kindly and now the little patient, after four weeks of treatment, is almost well. For the last ten days nitrate of silver (gr. v to ʒi) has been applied to the thickened palpebral conjunctiva.

SYPHILITIC PERFORATIONS OF THE BONES,

By A. H. OHMANN-DUMESNIL,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis.

SYPHILIS in its protean manifestations shows changes of the most varied character and pathological changes of the greatest dissimilarity. Like leprosy and tuberculosis it may attack any and all the tissues of the organism, sparing none, and often proving most destructive in its character. Whilst there is no doubt that syphilis is a proliferative disease, consisting of round-cell proliferation at its inception and, later on, of connective tissue hyperplasia of a fibrous character, it is equally indisputable that there are other changes which may be observed at times. Processes which are very destructive will manifest themselves more as a consequence of the disease, perhaps, than as a condition inherent to it. In other words, the destruction is rather an indirect than a direct one, yet is possessed of sufficient characteristics to justify its being called specific in form and character. In the so-called tertiary or post-syphilitic stages of the disease we meet with more or less marked involvements of the deeper tissues. These are rather prone to suffer and undergo a certain amount of destruction on account of a loss of resisting power as well as of reparative tendency. This element of destructiveness may be of a varying degree of severity, the quantity being dependent upon the locality attacked and the general state of the subject and of his tissues. In some cases the loss of substance and encroachments made upon vital organs may become so extensive as to endanger life even. Not infrequently permanent deformities of a very annoying character and permanent in their duration are the result of apparently trivial lesions which were neglected at their inception.

To even attempt a description of the various syphilitic perforations of bones and their varieties would involve the writing of a volume. On this account but two of the more frequently seen forms will be sketched in the present article. They are interesting to a high degree, more especially on account of the deformities caused and the inconveniences incident to them. Perforation of the nasal bone and of the hard palate are the two post-syphilitic lesions which attract so much attention and for which help is frequently sought, the subjects being anxious to obtain relief and being ambulant are very apt to have attention directed to their trouble and thus lead to embarrassing explanations or have the mortification of being continually stared at and otherwise annoyed.

It is quite a well-known fact that the nose is one of the organs which is prone to be affected by syphilis, more especially in those cases in which treatment has been neglected. Perhaps the most common example of the affection of the nasal bones which is met with is that peculiar condition known as "saddle-back" nose. It is not only seen in cases of acquired lues, but is one of the most typical of the signs of prenatal, or, as it is better known, hereditary syphilis. Another condition which is observed in acquired syphilis and which, while not visible, is distressing is one limited to the interior of the nasal cavities—perforation of the septum. The form of nasal trouble which will engage our attention is entirely different from those mentioned. It is a result of acquired syphilis and, so far as I have been able to determine in the cases I have had an opportunity to observe, it is dependent for its

cause upon an inadequate treatment or a neglect of the therapeutic measures and rules of conduct which should be most imperatively carried out. As a matter of fact, there is no excuse nowadays for the formation of perforation of the nose due to syphilis. The merest tyro who has even but a superficial knowledge of syphilology is capable of treating a patient sufficiently well to prevent such an untoward accident; but there is one condition against which even the most learned is impotent—the neglect of the patient. This is a condition around which no safeguard exists and against which the physician has no adequate protection.

In syphilitic perforation of the nose we have a manifestation which is either of late secondary origin or, most frequently, of that period which is a sequence of the secondary process and bordering on or inclusive of the so-called tertiary stage of the disease. The perforation is an indication of an involvement of the deeper tissues and is a direct consequence of a destructive inflammatory process of the nasal mucous membrane, which has culminated in ulcerative lesions. These destructive lesions may begin high up or lower down, being usually caused by some form of irritation, chiefly of a mechanical nature, such as scratching the nares with the finger-nail. The destructive lesion, beginning comparatively low down in the nasal fossa, gradually extends upwards by continuity of tissue until the upper portion of the anterior nasal fossa is attacked. As the process extends, healing and cicatrization takes place, but, when it is limited at the upper portion by the anatomical peculiarities existing there, destruction takes place in another manner. The process begins to extend through the mucous membrane and into the submucous structures. There seems to be but little pain connected with the ulceration and the patient is under the impression that he is suffering from an aggravated case of catarrh. A sanguino-purulent secretion accumulates and it possesses a very fetid odor which later on becomes unendurable to others and a source of considerable annoyance to the patient. It is a very characteristic smell such as is always found in connection with the bone caries of syphilitics. To resume, however, the unchecked continuation of the ulceration next attacks the periosteum of the nasal bone, giving rise to a constant, dull pain. This proceeds until caries of the bone takes place. This caries is limited in extent but not in depth, for the final result is that the skin ulcerates and the perforation is established. A good example of a typical case is shown in Figure 1. The process apparently stops when the perforation is established; but, it also remains stationary and there seems to be no tendency to spontaneous recovery. The edges of the opening become rounded off and even calloused. They will remain in this state unless ulceration is caused by either trauma or some other active cause. The perforation may remain stationary for years unless means be adopted to relieve the condition. One curious fact in connection with syphilitic perforation of the nose is that it is unilateral and, in all the cases I have had occasion to observe, it was located on the left side.

The treatment of the condition just described is one which is, of necessity, both medicinal and operative. Both are really indispensable in order to obtain a good result. The former, however, is of the highest importance, not only in the way of a preparatory method, but as a means to render the latter of permanent benefit, and here it is that it is employed to follow the surgical procedure. To place the patient in the best possible condition for an operation, both internal and local measures should be pursued. To begin

with, iodide of potassium should be administered in half-drachm or drachm doses, in milk, after each meal for some two weeks. This should be followed by some mercurial for an equal length of time. A good preparation to give is the biniodide of mercury pill after each meal, the ordinary dose

FIG. 1. Syphilitic Perforation of the Nose.

being a quarter of a grain. Such a course of medication will place the tissues in a good condition and, in addition, will greatly aid in a rapid healing of the wound made by the operation. So far as local preliminary treatment is concerned, some few details must be attended to in order to obtain a good operative field. Of course cleanliness is indispensable, but the beneficent

effects of local mercurial treatment will make themselves very apparent when proper and judicious use is made of it. For the purpose of cleansing the nasal cavity the following mixture may be sprayed twice or three times daily:

℞ Ol. eucalypti ..... gtt xx
Benzoinol ..... ℥iv
M.

The spraying should be thorough, and after each spray the nares well blown. Following this cleansing spray the following should be employed and permitted to remain on the tissues:

℞ Hydrarg. oleat 5% ..... ℥ss
Ol. amygdal. dulc ..... ℥j
M.

But little of this need be sprayed each time.

One important part of the local treatment, which is of no mean importance, is the removal of all small pieces of necrosed bone which may lie in the upper and middle portions of the nasal cavity. The local treatment which has just been mentioned, in conjunction with the general measures given, will hasten a reparative process, and the removal of necrosed or carious bone will do away with a possible source of local irritation so detrimental to the success of all surgical operations. It may be necessary in some cases to curette carious bone, and this had better be done before the external opening is closed. The general and local measures which are proper having been carried out, the operation proper may then be performed. This is a plastic in which the borders of the opening are freshened and two flaps, one on either side, cut and their free borders approximated by means of the procedure known as "sliding." This should be performed in a very thorough manner and care taken that there be as little strain upon the tissues as is compatible with good coaptation of the edges. This will greatly aid in securing a good result. An important point to secure a good result is to enjoin absolute rest of the parts operated upon, as well as complete protection from all irritating influences, mechanical and otherwise. Many an operation of this sort has been completely spoiled by neglect of these precepts and subsequent attempts at repair rendered more difficult. Of course, the strict avoidance of alcoholics is absolutely necessary, and this can be inaugurated during the preliminary treatment. It will be found that medicinal treatment during the course of the healing is of the greatest advantage, and the use of arsenauro in 10- to 15-drop doses in water, after meals, will fill all necessary requirements. A strict observance of these recommendations will bring about most favorable results and will lead to a recovery which can be made permanent by continuing appropriate constitutional treatment.

On the other hand if a case of syphilitic perforation of the nose be permitted to go on untreated, it may remain in *statu quo* for an indefinite period of time. If, however, the subject of the trouble will indulge in alcoholics and neglect proper dietetic and hygienic rules, as too many are prone to do, the bone necrosis will extend. The entire upper portion of the nasal osseous structures will suffer and thus lead to the formation of a large, gaping cavity which plastic surgery even may be unable to cope with in a satisfactory manner on account of the mechanical difficulties presented, as well as the bad condition of the tissues which are available for such a purpose. It is for this reason that the individual afflicted with the slightest syphilitic perforation should always be made acquainted with the possible

dangers incident to neglect of his condition as well as with the advantages which accrue from prompt surgical aid and efficient general treatment.

It is by no means a rare case to observe mucous patches occurring upon and implicating the lining membrane of the buccal cavity. These patches are interesting as well as important for a number of reasons, but the point at present to attract particular attention is that they not only have a great tendency to spread superficially but are also prone to ulcerate and attack the underlying tissues. This destructive process is a comparatively rapid one and attended with a certain amount of pain upon mastication and deglutition. In addition, there is usually a moderate discharge of a mucopurulent fluid, and the whole process is accompanied by a strong fetid odor of a nauseating nature. In order to illustrate the rapidity of the destructive ulceration which is occasionally observed, it may not be out of place to quote the following:[1] J. Darier observed a young man of 22 who had a perforation of the velum palati. The hole was large enough to admit a lead pencil, had thin edges, no redness, no swelling, no induration, and no suppuration. The patient claimed that it had formed in three days. The opening enlarged. Eleven days later a second perforation had appeared inferior to the first and to the right. Like the other it had no inflammatory characteristics but appeared as if punched out. Eight days later, at the time the report of the case was made, the two openings had enlarged, the bridge separating the two not being wider than one and a half millimetres, whereas, it had been twice as broad a week previously. Whilst this is a rare case it has been introduced in this place to call attention to an unusual process of lightning-like rapidity which might prove very puzzling, especially in those cases such as the one given, in which the presence of syphilis was never recognized.

To resume the subject: When mucous patches of a destructive nature attack the roof of the mouth they should receive prompt and immediate attention in order to arrest the destructive action at the earliest possible moment. On the other hand, in older cases, it is a gummatous infiltration of the mucous membrane which constitutes the starting point of the trouble. Like all gummatous growths it has a tendency to break down and ulcerate. No matter what the primary lesion of the process may be, in neglected cases the tissues break down, ulceration sets in and the hard palate is attacked by the destructive action which has become established. The osseous structure gives way in a comparatively short time, forming a small perforation which communicates with one or both nasal cavities and not infrequently involving the vomer in the process of destruction. The perforation increases in size and may attain the size of a silver dollar, as shown in Figure 2. Whilst in the majority of cases there is but one perforation about the center of the palate it occasionally happens that several perforations occur; but, when they do the first one is nearest to the center and the others occur in its vicinity. As the process proceeds the perforations increase in size and finally coalesce to form one large, irregular cavity. This keeps on for a certain length of time until the loss of the osseous tissue ceases spontaneously. The soft borders which existed during the destructive action gradually assume a rounded and rather firm form in this manner, making a permanent aperture. This last gives the voice a distinctly nasal sound besides leading to quite an amount of physical discomfort on account

[1] *Bull. de la Soc. Franc. de Dermatol. et de Syphilig.*, June, 1896, p. 408 *et seq.*

of the inability to swallow liquids or food with any dégree of ease or comfort. In the effort to swallow a liquid there is usually a regurgitation which takes place through the nares and it is not rare by any means for solid food to make its way into the nose and thus constitute a disagreeable source of irritation. Altogether the condition is a very unpleasant

FIG. 2. Syphilitic Perforation of Hard Palate.

one which calls for active interference of some sort for its amelioration.

In all such cases it will be found that destructive lesions are also present. Among the more common ones are ulcers of the legs and upon the trunk. Their size and depth seems to be proportionate to that of the perforation of the hard palate. The soft palate will not infrequently be found to present perforations or ragged, deep ulcers which are rapidly destructive

and have a tendency to extend downward and destroy the uvula. The pharnyx is another part which will present one or more ulcers which exhibit a tendency to become large and deep. The pillars of the fauces also present ulcerative manifestations with marked destruction of tissue. On the other hand cases present themselves in which a single perforation of the hard palate is alone manifest in and about the upper respiratory and buccal tract. Bone lesions in other parts as well as gummata are not rare accompaniments, however. In any case the local lesions, wherever they may be situated, constitute a good index of the condition at large and fully demonstrate the want of tone and lack of resistance in the tissues of the organism of the affected individual.

So far as treatment is concerned it is by no means as easy a matter as in the case of perforation of the nasal bones. The general management and constitutional treatment need not be dwelt upon, as it has already been outlined in the case of syphilitic nasal perforation. Yet, more care must be taken in regard to diet, in so far as the forms of food given are concerned, on account of the mechanical disadvantages offered by the preparation itself. Instructions should be given with care as to the proper methods of deglutition, and no food requiring much mastication is to be recommended. The proper method of drinking so as to avoid regurgitation should be taught the patient and he will derive a certain degree of comfort from a strict observance of proper directions.

Locally, treatment is quite difficult in some cases. All irritating food and liquids are to be avoided and perfect cleanliness should be observed. The floor of the nares should be kept scrupulously clean and all spiculæ and small particles of bone removed. The same local detergent and medicinal means are applicable here as have been recommended for perforation of the nose. The closure of the perforation in the palate is, of course, of prime importance if it can be accomplished. In the smaller perforations a staphylorraphy is indicated and will succeed if the preliminary course of treatment is thorough and the paring of the edge of the perforation is properly done. No definite directions can be given or rules laid down for the surgical measures which should be adopted, for they must be entirely governed by the indications and necessities presented by the case in hand. Necessarily, an operation on a syphilitic, especially an adult, will present more difficulties than in a child or infant so far as closing or perforation of the palate is concerned. In the larger perforations more difficulties exist and but little can be advised. Surgical measures will be found of but little avail unless they are such as are indicated by the absolute necessities of a case. Various devices, in the way of an operative method, have been attempted, but they have never proven successful. In a large perforation too much tissue must be replaced and if an attempt be made to borrow it from contiguous parts a destruction of these latter may take place, and result, finally, in a greater destruction than the original lesion presented.

One of the best methods to adopt in such a case is the use of an obturator. It can be worn without inconvenience by the patient and will afford him an opportunity of eating, drinking and speaking with ease as well as comfort. The obturator should be attached to a dental plate and if the patient have any teeth missing they may be attached to the plate, and in that manner add to the cosmetic effects of the device. Before attempting

to use such a plate with an obturator attached, two conditions are necessary: The mucous membrane of the mouth, especially that covering the palate, should be in the best possible condition to avoid the formation of any ulcerative process. Secondly, the edge of the perforation should be put in such a condition as not to be easily irritated. If it has not healed so as to be in such a condition it should be pared in such a manner as to afford an opportunity for cicatrization to take place in the proper manner. With a good edge such a lesion will permit of the use of an obturator whose presence will never be noticed nor its existence suspected. The plate should not be gold, as the use of mercurials will make it deteriorate. Good vulcanized rubber is the best material to employ. It is also better for the patient to have two obturators, as, by this means, he will always have a clean apparatus and thus greatly lessen the dangers of possible irritation which one might produce.

FORMULAE.

Hypodermatic Purgative.—

℞ Caffeinæ et chloral ..... aa gr. viiss.
Aquæ ..... M lxxv.
S. Inject fifteen minims.—*Ewald, Journal de Médecine de Paris.*

Anti-Dyspeptic.—

℞ Bism. subnit,
Magnes. sulphat.,
Cret. prepar.,
Calc. phos ..... aa 10
M. Div. in cachet No. xl. S. One before each meal in dyspepsia accompanied with pains and flatulency.—*Dujardin-Beaumetz.*

Anti-Asthmatic.—

℞ Tinct. opii 4
Ether sulphuric 8
M. S. About fifty drops every twenty minutes in attacks of asthma with emphysema.
—*Clymer.*

Infantile Diarrhœa.—

℞ Bism. subgal ..... ℥ i.
Sodii bicarb ..... gr. v.
Cret. prep ..... ℥ ss.
Creosoti ..... gtt. v.
Syr. cinnam ..... ℥ iv.
Aq. dest ..... q. s. ad ℥ iv.
M. S. Teaspoonful after each movement.—*Griffin.*

Absorbent Powder.—

℞ Alum, finely pulverized 5
Carbonate of lime, pulverized 4
Starch, pulverized 50
—*Sigmund.*

Cutaneous Irritation of Measles.—

℞ Lanolini puris ..... ℥ i.
Vaselini ..... ℥ iij.
Ol. ricini ..... m ij.
Aq. dest ..... ℥ v.
Ft. ung. S. Apply as required.—*Practitioner.*

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A MEDICAL HEADQUARTERS BUILDING.

Sometimes an improvement on old processes or conveniences is inaugurated that fairly takes one's breath away and continues to be a wonder as often as it is considered. Such, of course, is the electric light, the electric cars, etc.

In the medical profession we grow hardened to such wonders and learn to breathe freely even in the rare altitudes of modern invention and discovery that take away the breath of the uninitiated.

But although there have been some improvements in offices and facilities for physicians' co-operation, we must confess that the advantages, conveniences and services promised in the New Holland Building surprise us. It is really too good to believe that such a building will actually be completed for us, and yet we learn that it is going forward with every reasonable promise of early completion, that the gentlemen building it have their money all in bank, and that two-thirds or more of the building is actually rented. This last statement is not to be wondered at when the facilities furnished and prices charged are compared with other buildings. There are few offices in the city where a physician can get even a small portion of the facilities promised for anything like the rent charged.

Compare, for instance, the second-story offices which can be obtained along Olive street, Washington avenue or other respectable thoroughfares with offices in this building. The entrance and surroundings in most such places are not all that would be desired, the buildings are usually old and

not in good repair—probably an altered residence. Your neighbor tenants are seldom entirely satisfactory, the heat has to be arranged for by the tenant, light is extra, no such thing as hot or filtered water obtainable except at your own special cost and effort. We flatter ourselves that our lady and gentlemen patients like to visit us in such offices, but we probably are mistaken, and if we do not give them pleasanter places of reception we will possibly have reason to regret it.

Compare even the office buildings, such as Commercial and Union Trust, with this new candidate for our favor. They are good, but they lack a great deal of reaching the desired mark—a building especially for physicians. The facilities promised by the Holland and not obtainable in the best of present office buildings are many and important to physicians, and the purpose of the projectors to make it especially a "Physicians' Building," one to which ladies will go more readily than to any other office building in the city, is worthy of our support and energetic co-operation.

In architecture and construction the Holland Building claims to be better than any in the city. There are features of especial note for our benefit.

It has a ladies' or *slow* elevator, which will remove entirely any objection to offices on upper floors; it is far easier to ascend in it to any height than to walk up a single flight of stairs, and the most nervous need not be disturbed.

The ladies' toilet rooms on each doctor's floor are acceptable innovations and prove that the architects understand our needs.

The extremely fine arrangement of offices to secure light and air will be appreciated when occupied.

The filtration of water for washing purposes *without* alum is a distinct and appreciated advance in a physicians' building, and it goes without saying that the convenient hot water in our offices is a thing we must have.

The further unexpected advantage of drinking water, refrigerated and filtered through stone, is a little comfort and luxury that we are sure will be appreciated.

The convenient supply of gas is necessary, and it is surprising that such buildings as Union Trust and others should ever have omitted it.

The compressed air at any pressure desired is a convenience more than could have been hoped for; the Chicago buildings supply but one pressure, but here we can have a pressure of twenty or thirty pounds for spraying, or a pressure of 100 pounds or more if necessary for other work. The use of this adjunct will increase in practice as it is now so easily obtainable.

The furnishing of electric current in convenient places and voltage will be appreciated by all who use it, and the gentlemanly secretary of the company assures us that we need only in leasing offices designate the place we want it and the quality of current and it will be supplied.

Fountain cuspidors with running water and direct sewer connection are among the dreamed-of conveniences we oft have longed for but until this time have despaired of getting.

The telephones in every office at no additional charge, communicating with an exchange in the building, and through it to the outer telephone circuits is an inestimable convenience, even better than if we had a regular telephone, as then we would have to employ a constant attendant to answer

it, whereas the proposed system furnishes us with an attendant to receive and transmit our messages to outside people.

Even in the steam heating they have taken steps upward to perfection. A regulated vacuum heating system is to be installed, so that we neither freeze nor melt at intervals.

It is intended also to improve on other buildings in the janitor service; instead of colored janitors and janitresses, efficient white help will be employed.

Nor should we overlook the fact that this building has alleys on every side, so that a doctor's vehicle can stand without inconvenience or danger.

The "fully equipped," "up-to-date," "non-substituting," "carefully compounding" prescription pharmacy will certainly be appreciated and patronized to the full extent, so as to establish and support a loyal and meritorious pharmacist, whose interests are with the doctors instead of with the patent medicine makers.

The undertaking by the management of the building to secure to the tenants convenient, accessible and competent stenographic and typewriter service merits our approval and support.

The effort to establish a library and reading-room of current periodical literature, which will be a success if it meets with the co-operation of the physicians, is a valuable and time-saving innovation. The arrangement made by the management for use of the medical library of the Public Library, making the Holland Building a branch, is admirable.

And last, but not least, the hall which is on the twelfth floor, is intended for meetings of the Medical Societies principally. It is to be equipped for parliamentary meetings in a superior manner, probably surpassing any similar meeting room in the city. It is to have such anterooms as are necessary for committee meetings, etc. Telegraph, telephone and desk facilities for conventions are to be furnished. It is to have a lofty ceiling especially planned for beauty; it is surrounded by light and air on three sides and will be poetically cool "of summer nights." This is what has long been needed for the solidarity of the medical interests of the city and the great Mississippi Valley.

It would seem as if every college should have a headquarters in this building, as if every medical society should meet here and lend its aid to the establishment of a conspicuous medical center, as if every prominent physician should here have a suite, or an office, or an office hour.

The enterprise is one which peculiarly appeals to the profession for support, not only in their own interest, but to establish the medical headquarters for the Mississippi Valley.

DOCTOR ZERTUCHA.

It has devolved upon the Cuban war to produce the first example of a physician willing to sell out the life of his patient for $200,000. This transaction is not at all flattering to the profession, except as it emphasizes the fact of its rarity. We cannot let it pass without comment. The fact is that Spain has never got out of the fifteenth century—although we very much doubt if, even in that dark age, the act of Doctor Zertucha would have been considered meritorious. That military rulers, inured to war and its necessities and expediences, should be cruel and, perhaps, blood-thirsty is

not so strange; that they should have a light regard for human life is not wonderful. Passion, anger and the humiliation of constant defeat might dull the sense of morality; but that a man whose education has been on scientific lines, whose constant life has been devoted to humane acts (as supposed), who belongs to a profession noted for bringing into use the red-cross service, and has done more to abate the horrors of war than all other men or professions put together—that such a man should prove a traitor to humanity, should countenance the dishonoring of a flag of truce and the delivering of his patient over to foul murder, is almost incredible. At it we begin to loose faith in education as a humanizing agent. We shall be glad to know that Doctor Zertucha is but a quack and charlatan, and look forward eagerly to the day when such information shall be forthcoming. If it is not forthcoming soon, the act of Doctor Zertucha will be the first of its kind perpetrated by a reputable medical man. We should put on sack-cloth, sprinkle ourselves with ashes, and take a solemn oath of eternal abhorrence of Spain, her odious wars and damnable science.

R. C. B.

THE SAINT LOUIS MEDICAL SOCIETY.

The Saint Louis Medical Society is probably doing more scientific work than at any time in its history. The year just drawing to a close has been a successful one for the Society. Many new members have been secured, quarreling has been reduced to a minimum, reporters have been excluded, and good feeling prevails. We trust that 1897 will bring prosperity and honor to the Saint Louis Medical Society. Much will depend upon the presiding officer. From present indications no mistake will be made, all the candidates being able and honorable men who will continue the policy so successfully established.

THE TRI-STATE MEDICAL JOURNAL.

During 1897 the TRI-STATE MEDICAL JOURNAL will continue its well-known policy. It will give its readers an astonishing amount of valuable medical literature for the small sum of one dollar. Illustrations will be used freely and every effort will be made to keep the literary standard of the magazine above par. Liberal advertising and the services of a traveling solicitor will insure a steady stream of new subscribers. The advertising pages will be under control of our business manager and indications point to a great increase in this part of the JOURNAL.

Among the articles for the January (1897) issue are the following: "Surgical Treatment of Brain Tumor," by George W. Cale, M. D., F. R. M. S.; "Some New Laboratory Methods," by James Alexander Olose, M. D., L. R. C. P.; "Retinal Hyperæsthesia," by William Beaumont, M. D., of Bath, England; "Supernumerary Ovaries," by Joseph B. Ross, M. D., and an article upon some subject connected with cutaneous medicine, by A. H. Ohmann-Dumesnil, M. D. Dr. Edward Borck will describe the "College for Medical Practitioners," which was the first post-graduate medical school in America. The Historical Article will appear as usual.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In Photo-Lithochromes from Models in the Museum of the St. Louis Hospital, Paris. With Explanatory Wood-cuts and Text. By ERNEST BESNIER, Physician to the St. Louis Hospital, Member of the Academy of Medicine, President of the Dermatological Society of France; A. FOURNIER, Physician to the St. Louis Hospital, Professor of the Faculty of Medicine, Member of the Academy of Medicine; TENNESON, Physician to the St. Louis Hospital; HALLOPEAU, Physician to the St. Louis Hospital, Member of Academy of Medicine, Professor agrégé of the Faculty of Medicine; DU CASTEL, Physician to the St. Louis Hospital, with the co-operation of HENRI FEULARD, Curator of the Museum, formerly Chef de Clinique of the Faculty at the St. Louis Hospital. Secretary: L. JACQUET, formerly House Physician to the St. Louis Hospital, Secretary of the Dermatological Society of France. Edited and Annotated by J. J. PRINGLE, M.B., F.R.C.P., Assistant Physician to and Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Royal Quarto. Part IV., pp. 83-112, with Four Plates and Figures in the Text. London: The Rebman Publishing Co., Ltd. Philadelphia: W. B. Saunders, Publisher, 925 Walnut Street, 1896. To be published in 12 parts. Price, $3.00 a part. Sold by Subscription.

As we have already stated in a previous review, these plates are unsurpassed for their artistic work and faithfulness of delineation. What is of particular merit is the exactitude of coloring which is preserved and the life-like color given to every lesion depicted. The artists have caught the spirit of Baretta, who is to-day, as he always has been, the *facile princeps* of all who have ever attempted to make *moulages* of skin diseases. We cannot refrain from expressing our high appreciation and admiration of the work of this master, and the fidelity with which he has been followed in these plates has only increased respect for the reproductive art in colors as evidenced in this atlas.

In this part the first plate (xiii.) illustrates a case of mycosis fungoides, a disease which is far from common in this country, and which is not as generally well known as it should be, if we are to judge from the different names which have been applied to it by different authors. Thus: Kaposi has denominated it lymphodermia perniosa; Tilbury Fox, fibroma fungoides; Anspitz, Payne and others, granuloma fungoides; Guérard, lépre indigène. It would appear that abroad the disease occurs with sufficient frequency to deserve more extended study at the hands of general practitioners, and it may possibly be that the same condition holds good in this country. At all events the trouble is sufficiently interesting in itself to deserve extended study at the hands of all physicians. In the plate which is depicted

we have given a most excellent picture of the disease and the clinical description, including treatment by Dr. Ernest Besnier, is certainly above criticism. As a matter of fact, it is a most complete account of the case depicted and one which cannot fail to interest dermatologists as well as general practitioners.

The next plate (xiv.) is illustrative of some commoner forms of psoriasis. We are given here illustrations of a marked squamous psoriasis of the arm and psoriasis guttata of the penis. In a wood-engraving in the text is also given a picture of a mixed form of the eruption on the back. The text is contributed by Dr. Henri Feulard. The colored plate is certainly striking in appearance, the colors being life-like and exact. The only criticism we might make is in regard to the areolæ about the squamous patches. They are rather too dull in color, but this might be due to the use of pyrogallic acid, which is a favorite remedy for this disease in the Hôpital St. Louis. The eruption on the penis is much better represented, to our mind. Either one, however, is superior in execution and much better than those we find in other atlases of skin diseases. The descriptive text is rather short and summary, and not as comprehensive as we would have wished to see it. Dr. Feulard, in the course of his remarks, very justly observes that whilst psoriasis has been regarded as parasitic in origin by some authors, the parasitic nature of the disease is doubtful, and we have no doubt that it will continue to remain so until clearer evidence and more convincing proofs are forthcoming than we have at present.

The next plate (xv.) is a magnificent specimen of the limner's art. It represents a case of tubercular leprosy of the face occurring in a patient affected with universal leprosy of the skin. The right ear is also represented. This is one of the best plates of those so far issued. The tubercles and exaggerated folds of the skin making up the typical leonine face are given with a faithfulness and exactness truly marvelous. The peculiar soft, velvety thickening of the auricle is also reproduced in a manner which elicits admiration. Not only are the forms and colors reproduced in a most artistic manner, but what is of still more value in such a picture is the perfect relief which we find shown. One feels tempted to pass the hand over it to detect the amount of thickness existing in different portions, and thus confirm the impression conveyed by means of the eyes. The peculiar color of the integument so often seen in leprous individuals is given with the same painstaking fidelity. On the whole, we cannot but regard this *moulage* as one of the masterpieces of Baretta. The one before us was made in 1887, but we are furnished with photographic reproductions of the same case taken in 1888 and in 1896. The case was one under the care of Dr. Ernest Besnier, who furnishes the descriptive text accompanying the illustrations. He goes into details in regard to the case, and, whilst he cannot lay claim to having cured it, he has certainly rid the face completely of all signs of any leprous process. The author does claim that very satisfactory results are to be obtained when the disease has not progressed too far. The internal medication upon which he relies is chaulmoogra oil up to 300 drops and salol up to five grammes every twenty-four hours. This he follows later with chlorate of potash, giving about a gramme every twenty-four hours. The diet is carefully attended to: fish, pork, salt provisions, coffee in excess or alcohol are prohibited. We fail to find any mention of the

author's opinions in regard to the contagiousness of the disease. However, they are sufficiently well-known not to require any repetition. The entire article is interesting and written in Besnier's most happy style. Those who have followed his work and read his articles are fully appreciative of all that this implies.

Mycosis fungoides forms the subject of Plate xvi. This is a peculiar form of the disease characterized by the presence of tumors of mycosic nature. Five photo-engravings in the text illustrate other appearances in different portions of the body of the same patient as seen at various periods of time. A sixth engraving illustrates the development of a mycosic tumor on the arm of another patient. The great interest which attaches to mycosis fungoides is chiefly in relation to its appearance and peculiar course of development. As Dr. Henri Feulard, who furnishes the text for this plate, says: "Treatment for mycosis fungoides is of very little use, as up to now it has not been possible to arrest the progress of the disease." As a rule, the growths regress spontaneously for a long time. If the tumors are uncomfortably situated they may be removed and, if ulcerated, antiseptic dressings are indicated.

The articles and illustrations in this part of the present atlas which are devoted to mycosis fungoides should be carefully read and studied by Americans, as the disease is seldom seen in this country, although it seems to be of comparatively frequent occurrence on the Continent. It is well to bear such cases in mind not only for the purpose of readily recognizing them, but as a matter of importance in the matter of prognosis.

In conclusion, we desire to reiterate what we have said concerning this atlas in a previous number of the JOURNAL. It is still maintaining the high standard which was adopted in previous parts, and we have no doubt that it will be maintained to a successful termination. We desire to again congratulate the authors and editors upon the successful issue of their labors. We also think that the medical profession can congratulate itself upon having been offered this opportunity of possessing such a handsome work at such a comparatively low price. We are sure that physicians who have an opportunity to see this work will not let the chance slip by of subscribing for it. In fact, it is their duty, in our opinion.

OHMANN–DUMESNIL.

Practical Dietetics. By W. GILMAN THOMPSON.

A correct knowledge of practical dietetics is of the first consideration in the cure of disease. Notwithstanding this fact, there is no single subject connected with the practice of medicine about which so little is known. One reason for the existence of this condition is the failure on the part of medical faculties to lay sufficient stress upon the value of diet and too much emphasis upon the therapeutic value of drugs. This seems more remarkable when we consider that probably no class of disorders comes more frequently before the practitioner, both general and special, than the disorders of the stomach in which diet, if not everything, certainly does outweigh in importance all the digestive ferments, acids, alkalies, etc., known to our art. Until recently the subject has never been given sufficient attention to merit a first-class work, setting forth the scientific knowledge in our possession to-day. However, this cannot longer be urged as a reason for a lack of information on proper feeding in disease, for the work of Dr. W. Gilman Thompson on Practical Dietetics is, to my mind, one of the most valuable books before the profession to-day. It is replete with practical knowledge which every physician should possess.

W. G. MOORE.

REMINISCENCES,

By EDWARD BORCK, A. M., M. D., St. Louis, Mo.

CHAPTER II.

DISPENSARIES—A DRAMA.

[Played at St. Louis, 1874-75.—From Memory.]

PROLOGUE.

ON THE return from the Missouri State Medical Association of 1896, held in Sedalia, the St. Louis doctors were gathered together in a palace car. All were in a merry mood. Several eventually retired to the smoking compartment, among whom were Drs. Moore, Lutz, Stoffel, Shaw, myself and others. Having donned our linen dusters, we were supplied with cigars, and, making ourselves comfortable, naturally fell into an interesting as well as absorbing conversation. Each had some experience to relate, and the time passed rapidly and pleasantly. Prof. Shaw, who admired me for my honesty, said: "Borck, you ought to publish your experience; it would make good reading." "I have a great many notes in my memorandum book; they may be published after I have gone to eternal rest," I replied to my friend, whom I esteem very much, and whose kindness in days gone by I appreciate. But they all exclaimed: "Do it now! Do it now!" Since then Dr. Shaw has died.

ACT I.

SCENE.—Doctor's office, appropriate stage setting, consisting of easy chairs, lounge, table, cuspidors and a supply of ice water, cigars and fresh air. A meeting of M. D.'s for a certain purpose. Present: Drs. A. B. Shaw, medicine; Hardaway, skin diseases; Cozzen, eye; Hazard, nervous; Borck, surgeon; and one other whose name has escaped my memory; we will call him Dr. W.

Dr. B.: "Take seats, gentlemen, and make yourselves at home."

All: "All right."

Dr S.: "Well, gentlemen, what do you think of our scheme to open a Free Dispensary for treatment of the worthy poor."

Dr. H_I.: "Can we do it?"

Dr. C.: "Why not? If we can interest some church, we may under that auspices." (These three gentlemen favored the authority of the of the church, for "charity's sake.")

Dr. H_{II}.: "I oppose a connection with any church. We should do it by ourselves, without aid."

Dr. W.: "I don't know; as far as I am concerned, I agree with Dr. H_{II}.; however, it might be better to have it associated with some church, for the doctors may object to our establishing a free dispensary, and then the medical society might come after us with the 'code,' you know it prohibits free treatment. Possibly it would be as well to cover the dispensary with the 'church veil' of charity."

(Dr. W. was a very conscientious man, and also a strict "code" man; he would neither do anything contrary to the "code," nor that which the doctors would not like.)

Dr. H_{II}.: "The colleges have free dispensaries."

Dr. W.: "Yes, but they are corporations and therefore privileged bodies; they can do as they please. They need clinical material; and they advertise the college, not the professors. It is charitable work, both for the students and poor people, but it would not be professional for an individual."

Dr. H_{II}.: "We must be incorporated." (We all had plans according to our own ideas, but none had any practical experience in the management of a dispensary.) "Let us hear from Borck."

Dr. B.: "Gentlemen, I have listened to you with profound interest and attention. It seems to me this matter needs a little more digesting and we should go about it carefully, systematically and in a business-like manner. First: For what purpose do we wish to establish such an institution, what is the main object? Second: Who is to be benefited thereby? Third: Is there any field in this locality for such a dispensary?"

Dr. W.: "Yes, there is; we have at present only the free dispensaries at the city colleges."

Dr. B.: "Excuse me; allright, grant that. Fourth: How are we going to accomplish it? Fifth: Where is the money to come from? The first question you answered by 'charity.' I say: 'Yes, charity; gentle to hear, kindly to judge;' the second question we will leave for further study. The third has been answered by Dr. W., but needs investigation. To the fourth I say: *Leave* your churches *out*. There are five of you, each belonging to a different congregation. Which shall it be? I believe to act independently is preferable. The fifth is the greatest *desideratum*. None of us have any money to spare. One word in regard to the doctors. It was said they may not like it. I had some experience of that when in Paducah, Ky. I advocated the establishment of a hospital; the people gave their sanction, but the doctors opposed it. However, the hospital came. The doctors now like it very much, and are proud of it, and each claims the credit. The 'code' does not mention dispensaries. We had better think the matter over and have another meeting." (At this juncture some one offered the following proposition as a compromise between two extremes: Whereas, it will be prudent to leave the matter to the lay public, therefore, it is moved that each of us interest one of his friends, and induce him to accept the honorable office of director and that the institution be non-sectarian. Seconded; adopted. Meeting adjourned.)

INTERLUDE.

We doctors now searched for charitable friends and each secured one, who imagined himself highly interested in such work. It was understood among the doctors that we were to select only such persons as would be willing to work, act as a figure-head, obey our dictations and be responsible for all debts which might be incurred.

ACT II.

SCENE.—Double parlor. Characters: Seven future directors and six M. D.'s. Meeting called to order. Eloquent speeches in behalf of charitable work and its reward and of the nobility of a charitable profession. (Read biography of Marion Sims, Valentine Mott and others, and see how charitable physicians are towards one another.) Dr. W. spoke at length upon the terms "free," "gratis," and the "code." (The latter spectre always present.) All filled with enthusiasm. Officers were elected

under heavy bonds. A subscription of five dollars was pledged by each. Committee appointed on Constitution and By-Laws. Meeting adjourned until called.

ACT III.

SCENE.—Dining room. Actors: All the directors and doctors. Meeting called to order. Constitution read and adopted. The six physicians present were formally declared the medical staff by the directors.

Dr. W.: "I think it would look well to have also a consulting staff and its influence." (Applause. The directors considered a consulting staff consisting of professors to be a desirable addition.)

Dr. B.: "I oppose any and all consulting professors. We do not need them. They are a superfluous annexation." (An awkward pause.) All but one voted for the staff.

President: "Will the medical gentlemen suggest some prominent men?" Profs. Boisliniere, Bauduy, Langford and Robinson. (They accepted the important position; were duly elected and installed by the directors. Their names were enrolled and appeared in our announcements in capital letters. "*Dies faustus!*") It was also ordered that every member constitute a committee of one, with power to solicit aid. Drs. H_{II}. and B. were appointed a special committee to select a suitable locality, and do some extra fine collecting of cash and material, as well as with the power to procure the necessary fixtures. (We had an excellent set of directors, men of business, honorable, liberal, enthusiastic and charitable. They objected to the use of the words, "free," "gratis" and "the poor," preferring to have our announcement to read: "For the treatment of the indigent.")

Dr. B.:—"Mr. President, may I have the floor? I wish to say a few words, so that there shall be no misunderstanding about my views. 'Charity covers a multitude of sins' says Peter: I do not wish to cover my sins—I confess them—I will, with pleasure, give you one hour a day of my time; for my own good. It consists in this: First: It will relieve me of considerable work at my office. I can send indigent patients without hurting their feelings, to my clinic and give them as good attention. Second: To be connected with such an institution will make one known; in other words, it is legitimate advertising. Third: Certain cases will be brought to the clinic, without which would otherwise never receive treatment; for instance, congenital malformations. Fourth: I can do my charitable work in the right direction, and yet have the benefit of the cases for study. Fifth: I want the clinical material to teach. Sixth: In time a hospital can be built from this. Seventh: It may be the stepping stone toward a college; this city is growing rapidly, and there will be room for one or two more." Here a painful silence ensued. (No doubt there was admiration for everybody's frankness.) The meeting was adjourned.

BETWEEN ACTS.

(Here are pleasant recollections.) Dr. Hazard was a worker, possessed of an amiable disposition; he and I put in all our spare time driving around, soliciting subscriptions, begging lumber, coal, paint, chairs, tables, towels, and everything available. Tilden & Company donated about one hundred and fifty dollars' worth of their Fl. Extracts. Our druggist friends contributed generous supplies of their *fresh* medicines. Our female friends did the sewing. Everything looked promising, all were conscientious in

their endeavor to make the movement a success, and we were finally prepared to open our establishment.

ACT IV.

SCENE.—Large store, on Market near Jefferson avenue. Over the door a sign with gilt lettering: "WESTERN DISPENSARY." (This was a donation from one of the directors.) Inside, the large room was divided into three by partitions. There was also a room used as a surgery, and a rear room was inhabited by a woman and her daughter, who, for the munificent consideration of free rent and coal, kept the place presentable. Everything was neat and in order.)

Characters: Directors, doctors and several of their friends. (General inspection). Meeting called to order, and the property turned over to the trustees, who accepted their responsibility.

Remarks were in order, and there was a general discussion of plans for present and future, all pictured in glowing terms. It was decided to have a formal opening next day, and devote six hours a day, except Sunday, to charitable work. Each physician was to be present one hour, the directors to appear whenever they chose, which was very seldom. No one suggested having the opening attended by a brass band, as there was brass enough. The meeting adjourned and, with the best wishes of all and the Lord's blessing, we proceeded.

CONTINUATION.—Next day we had our opening. At first things went slowly but by strict attention to business and with the coöperation of the doctors outside our circle (who advertised for us in all directions) we soon built up a good clinic. I know mine was excellent. But "surgery tells," so said my friends. I recall the first quarterly report and the long list of patients; the directors were elated. They did not know that if the same woman had called ten successive days we marked her each day as a new-comer, thus making a fine show and a double entry.

When we had no patients we studied or Dr. $H_{I.}$, our poet, would entertain us with his verses on the hypodermic syringe and what benefit this small instrument was to mankind. Occasionally one of the staff would dash up to the door in his fine new buggy (which had the gearing painted a bright red and was respectfully christened "milk wagon.")

ACT V.

Three months later. Up to this time every thing went well. Now came our first trouble. Dr. W. had returned from a trip to Europe filled with advanced ideas. He opened an office, had his cards and several thousand hand-bills scattered broadcast with the announcement that he had returned, was at his office and would answer calls night and day, and made mention of several specialities to which he would give his most careful attention. Our doctors and staff were much disconcerted. Drs. $H_{II.}$ and B. were appointed to see the professors. A vote was taken that Dr. W. had either to resign or recall his circulars. Dr. W. made a statement pleading ignorance and having no desire on his part to oppose the "code;" he had always lived up to the mark and would destroy all the remaining hand-bills. Peace once more ruled, for Dr. W. kept his word. Upon reaching his office he threw the six remaining hand-bills into the fire; these were the remnants of his original *thousands*. ("Away, ye evil spirits; the angels are in ascendency.")

ACT VI.

Missouri Medical College. Dr. Moore, Dean, and others of the faculty; Medical Staff of the Western Dispensary, except Dr. Borck.

I cannot remember how it was brought about, but there was a mutual agreement that during the winter session the students of the college should have the advantage of the Western Dispensary clinics, and it should be announced in the college catalogue that the Western Dispensary Medical Department would have the quiz class during the winter, and the lecturing during the summer course; the professors were also to make the announcement to their classes. That was fair enough; however, there was some misunderstanding. *Remember*, we had clinical material.

INTERMEZZO.

My consulting professor surgeon, then the rising star, whom I never had occasion to consult, paid me a call, to ascertain how I was getting along and how did the clinic prosper; he had heard that I had several interesting cases under treatment (So I had.) He would remind me that *he* was the *consulting* surgeon, and kindly offered his services in any case I might desire him to see, or operate, before his class. (He also had a Sacch. Alba bowl with him and made a discreet use of the granules contained therein. A very nice gentleman and surgeon, he was.) I thanked him for his kindness, and politely informed him (perhaps, with a suggestion of acid. acet.) that I should be charmed to avail myself of his skill and advice, if opportunity presented; I also wished it to be understood that I had not built up the clinic for any one's benefit but my own, and the instruction of the students by me, and for the assistance of that class of patients deserving charity. Good-bye.

"Borck is no good!" The consulting surgeon *on paper* could not stand it. Here was a misunderstanding. The result?

ACT VII.

The winter session opened. Time had arrived for quizzing classes to begin. With the exception of Dr. Borck, all the staff had attended, as their names most likely had been announced by the professors to the various classes. I was informed by our medical secretary that Friday evening (unlucky day) was allotted to me. Accordingly I went to the college, but found only a few students, who were not in the least prepared. They informed me that my consulting professor had made no mention of my quizzing them. I declined to go on, unless the proper announcement was made, and left the building. Upon inquiring of my colleagues as to the cause, they were innocent of anything which had occurred. I waited for a time, but no announcement was made; so I did not return to the college. This settled things in a most admirable way, as far as I was concerned.

OLIO.

Some very interesting and pleasing incidents now followed at our dispensary and meetings. Dr. S. lauded my frankness; Dr. W. (who had an inclination for surgery) praised my pride. Dr. H_I. immortalized my prowess in verse, and in more ways than one there was a vast amount of mirth. This good-fellowship induced me to resign. The doctors expressed

their regret but, at the same time, gently made me understand *that* if *they had* to do without me of course they *must* submit. Dr. W. went so far as to say: "It might be prudent to bear a little insult for a time, as it might benefit one's future." However, opinions differed. I went home and, having sought my couch, was soon lost in the tranquil realms of Morpheus, to be finally harrassed by a dream of horror. Thirty days later the dispensary was closed and the fixtures sold at auction. Why, I was never able to ascertain. The dream realized.

EPILOGUE.

Three of the gentlemen continued quizzing and acted as adjuncts to the professors in their respective branches. I need not explain the duties of an adjunct or assistant; every one knows that the adjunct must keep his place. Professors, as an average, say: "No other god before me."

Well, these three assistants kept their places for years, waiting patiently, like Micawber, "for something to turn up." At last, one was obliged to connect himself with another college to attain to a professorship. The second started a new college to accomplish the same object. The third, with an *Ad Eundum* degree, is the only one rewarded with a full chair in that college, after years of faithful but not lucrative service. I believe he still holds his professorhip. (You cannot always keep an ambitious adjunct in his place. He will shine sooner or later.) "There's a divinity that shapes our ends."

Of myself I will say nothing. Since the occurrence of these events many years have passed, but these pleasant recollections and associations remain bright in my memory.

In conclusion, I may ask: "Are physicians partial to colleges and dispensaries?" Look around. Answer yourself.

MEDICAL PROGRESS.

The Marriage of Cardiac Subjects.—In the vast majority of instances young women who are affected with heart disease marry, if they get the chance, without consulting the family doctor in reference to their physical suitability for the married state. Nevertheless, the influence of marriage and pregnancy on such patients is a matter of considerable interest to the practitioner, whose advice is occasionally sought by anxious parents or the circumspect and not wholly blinded lover. Daily experience proves that even comparatively advanced heart disease is compatible with repeated pregnancy and normal labor, and the ease with which these patients, or some of them, withstand the drain of pregnancy and the strain of labor is often a matter for surprise. This fact, however, hardly justifies the assumption that pregnancy is not liable to cause serious circulatory disturbance by reason of the extra work thrown upon the heart. The likelihood of cardiopulmonary complications is determined by what we may term the "margin of compensations." Repeated pregnancies unquestionably have a disastrous

effect on a previously-diseased heart, culminating, sooner or later, in asystole. This is most frequently the case in patients presenting pronounced lesions of the mitral valves, the extra strain thrown on the pulmonary circulation early giving rise to dyspnœa and hæmoptysis. Whenever these symptoms have already been observed, marriage, or pregnancy, at any rate, should be disadvised. It is obvious that if the "margin of compensation" falls short of the force required to carry on the circulation under ordinary circumstances, the defect is likely to be enhanced by additional demands on the circulatory apparatus. If, on inquiry, the conditions appear to be favorable, marriage may be assented to on condition that the state of the heart be carefully watched, and that the patient promise to observe the rules laid down for her guidance. One of the most important rules in this respect is the strict avoidance of fatigue and exposure when pregnancy takes place. Dr. Jaccoud lays great stress on the importance of a mixed milk diet, rigorously applied from the second or third month of pregnancy. In virtue of its diuretic action it constitutes a powerful aid to the circulation, and thus averts the numerous and dangerous complications which circulatory failure and venous stasis entail under the special conditions. The patient should always be frankly informed of the extra risks which marriage involves to those suffering from organic disease of the heart, for it can hardly be doubted that the effect of repeated pregnancy in such subjects is to accelerate cardiac degeneration and hasten the advent of asystole. This is about all the medical man can do, for the proportion of cardiacs among marriageable females is too large for it to be practicable, or even desirable, to exclude them from their natural career as wives and mothers.—*Medical Press and Circular.*

How Hydrophobia Is Diagnosed.—We find the following in the report of the proceedings of a North of Ireland Board of Guardians: The Board's Inspector under the Contagious Diseases (Animals) Act wrote stating that it had been reported to him by the Constabulary that a boy had been bitten by a stray dog supposed to be rabid. He at once drove to the place in question, but *could find no trace of the dog, but from what he had learned of its movements he was pretty well convinced that the dog was rabid.—Medical Press and Circular.*

Prevention of Ophthalmia Neonatorum. — Dr. Charles Zimmermann says: We know that the agent of the disease is the gonococcus, derived from the parturient secretions of the mother affected with gonorrhea, and communicated to the eyes of the child, primarily, during labor, from the maternal secretions covering the lids and the face, or, secondarily, later on, by the water in which the infant is bathed, the hands of the mother or nurse, or by towels, etc., soiled with infectious matter. Zweifel and Kroner proved experimentally that the sanguinolent, serous or purulent puerperal discharge, free from gonococci, when brought into the conjunctival sac, does not cause blennorrhea.

These facts call for the following measures:

1. Men affected with gonorrhea or gleet ought not to be allowed to marry.

2. The vagina of a woman who is suspected of gonorrhea ought to be cleansed with antiseptic solutions before and during labor.

3. As soon as a child is delivered, the lids and surrounding parts ought to be dried with aseptic cotton or gauze and then washed with boiled water or sublimate solution $\frac{1}{5000}$ —never with sponges or with the water in which the child has been bathed.

After the bath the eyes are treated according to Credé's method (devised in 1882), viz.: the lids are held apart with two clean fingers, and a drop of a 2-per-cent. solution of nitrate of silver is dropped on the cornea from a glass rod. Then the eyes are left alone. Especially in the next twenty-four to thirty-six hours, if a slight redness or swelling of the lids with mucous discharge should occur, the instillation is not to be repeated. In the instructions I give to the nurses in the training-school I value this simple procedure as most important, and particularly require that each nurse execute it before me. Credé advised this treatment for all infants directly after birth. Of 1,160 infants treated by him in this fashion within three years, only one (0.1 per-cent.) developed blennorrhea, and in this case the instillation had been forgotten in the rush of practice.[1] Previous to inaugurating this treatment he had 7.8 per cent. of ophthalmia neonatorum among 5,057 infants in thirteen years. Others following his rule have reported similar excellent results. Haab, for example, in his statistics from various lying-in hospitals, found that before the introduction of Credé's method 8.9 per cent. of 42,871 infants had blennorrhea, while after its introduction only 1 per cent. of 10,521 infants were so affected.

The preventive efficiency of nitrate of silver depends upon its action in the depth of the tissues. It coagulates the albumen of the cells, and thus destroys the gonococci which may have migrated into the corneal epithelium. A drop of a 2-per-cent. solution of nitrate of silver, even in healthy eyes, does not produce any lesion except slight redness, as proven by Fraenkel, who protected the healthy eye in children affected with blennorrhea of its fellow by daily instillations of one drop of the solution for six weeks.[1]

4. The most careful cleanliness in washing and handling the child will prevent secondary infection.

5. If, however, the eyes show the least sign of pus on the subsequent days, it is the duty of the midwife or nurse to send at once for a physician who is familiar with treating the disease, and under no circumstances undertake treatment herself.

6. Any nurse or midwife who from ignorance or obstinacy fails to report such a case at once ought to be severely fined and excluded from further practice.

If these rules are strictly adhered to, ophthalmia neonatorum will be prevented and many eyes saved from blindness.—*Medicine.*

Moved.—Dr. J. H. McIntyre has removed his office to 710 Olive street.

Married.—Dr. Bransford Lewis has recently taken unto himself a wife.

A Visitor.—Mr. W. B. Saunders, of Philadelphia, the well-known publisher, recently visited this city.

[1] H. Cohn: Centralblatt fur Augenheilk., 1895, p. 109.

STUDENT'S MANUAL OF MEDICAL JURISPRUDENCE.

By R. C. BLACKMER, C.M., M.D.,

Professor of Legal Medicine in Barnes Medical College,

[CONTINUED FROM NOVEMBER ISSUE.]

3. The pressure of chronic or acute pelvic inflammation.

4. Displaced ovaries.

5. Abscess of the Fallopian tubes.

6. Urethral caruncle.

7. Furuncles about the vulval orifice.

8. Small follicular ulcers about the vulva.

9. Anal fissure and hemorrhoids.

Question. To what three remote causes are most of the diseases that give rise to dyspareunia due?

Answer. 1. Improper attitude during coition.

2. Inequality as to the time at which the parties arrive at the sexual orgasm.

a. The man reaching the culmination before the woman, leaving her sexually aroused, yet entirely unsatisfied.

b. The man being extremely slow, reaching the culminating point, only after the woman has become exhausted by repeated orgasms.

3. Improper dress, especially tight lacing to which so many modern women subject their waists. This compresses the pelvic organs, and is a very prolific cause of displacements and inflammations.

Question. What points are of especial importance in connection with the subject of dyspareunia?

Answer. 1. The causes leading to dyspareunia in both male and female are usually removable, if proper treatment be employed.

2. Dyspareunia causes trouble by rendering the victim of it practically impotent for a time, if not permanently. This leads to connubial infelicity, and possibly to applications for divorce.

3. The courts do not recognize dyspareunia as an excuse for divorce, but other causes can soon be raised, when this is present.

CHAPTER XV.

VIRGINITY, DEFLORATION, CHASTITY.

Question. What fact forms the most prominent point of evidence when the virginity of a woman is called in question?

Answer. The presence or absence of the hymen.

Question. What information is necessary to the proper understanding of this point of evidence?

Answer. 1. The first complete intercourse between young and active adult persons practically always ends in the destruction of a normally constructed and a normally situated hymen.

2. A hymen situated far up the vagina may escape injury during intercourse.

3. An abnormally tough and fibrous hymen may resist vaginal coition and only permit vulval penetration.

4. An abnormally lax and elastic hymen may be stretched or pushed aside during intercourse and thus escape injury.

5. Vulval intercourse may take place where the male is an immature boy, or a feeble old man, and a normal hymen remain intact.

PUBLISHER'S DESK.

Mailed Free to Physicians.—A reprint of how I treat with antiseptics respiratory diseases, viz.: *Catarrh, throat, bronchial, asthma* and *lung diseases*. The medicines can be carried to the parts affected. Over 800 cases treated, and more than 95 per cent. successful. Address R. C. COTTINGHAM, M. D.,
513 Reed St., Moberly, Mo.

The Modern Treatment of Diphtheria in Private Practice.—On the evening of September 14th, a little girl called at my office with a request that I should visit her sick brother. The public schools had opened their doors on that day, and Johnny McD., although complaining of feeling sick, was sent to mingle with the hundreds of other school children.

An inspection of the case showed all the clinical symptoms of diphtheria, with a muco-purulent discharge from the nostrils so fetid that the odor filled the room. The examination completed, the mother anxiously inquired: "What is it?" "It is a case diphtheria," I said, and her face blanched, her voice trembled, as she said, quietly: "I know what that means—I have buried two children with that."

On the 19th the father called at my office to say that Johnny could not be kept in bed, and they thought he was well.

In a skeleton way this illustrates the results of treatment with anti-diphtheritic serum, and stands in bold contrast with the drug treatment with the bottles of medicine, the cruel swab, the sleepless nights, the futile attempt to force food and medicine, the onset of secondary infection, and death or a tardy convalescence.

The uniform success which I have observed, and had in my own practice, has convinced me that the treatment of antitoxin is a great advance in therapeutics, and it is my impression that critics who have condemned this treatment have in most instances either observed only hospital patients, or have not persisted in the treatment, or perhaps have not had a fresh and reliable serum, or have not used it early enough.

From the standpoint of a general practitioner I confidently expect to cure any case of diphtheria in private practice seen within forty-eight hours of the onset of the disease.

Take, for instance, a typical case: A previously healthy child six years of age. The family physician is called in and finds the following conditions: general depression, face pale, pulse accelerated, temperature about 101° F. Inspection of throat shows general diffuse redness, with the characteristic deposit on one or both tonsils. This peculiar deposit once seen is not readily forgotten; the high fever, flushed face, and rapid pulse usually seen in pseudo-membranous tonsilitis are absent; the margin of the inflammatory process is usually sharply defined in diphtheria and not in tonsilitis. In follicular tonsilitis the leading symptoms are: intense congestion of the tonsils, with small discrete white patches, pulse and temperature high.

If, however, the symptoms are not well defined and the differential diagnosis cannot be clearly made, we should give the patient the benefit of the doubt and a dose of anti-diphtheritic serum administered at once. Then a culture should be made to verify the diagnosis. If I believe the case to be diphtheria, or have a reasonable doubt as to the diagnosis, I use the antitoxin whilst waiting for the report from the bacteriologist. If the case turns out to be tonsilitis, no harm is done, as I consider a fresh, reliable serum, properly administered, devoid of danger.

Given, then, a case where the diagnosis of diphtheria is clear, I give as quickly as possible either 1,000 units or 1,500 units of the serum. The attendant is instructed to keep the throat clean with a bichloride solution of 1 to 5,000; or a solution of permanganate of potash may be used, 1 to 4,000, if the attendant is not a trained nurse. With a young child, difficult to manage, it is best to inject the solution into the nostrils; in older children a spray can be used in both the nostrils and throat more advantageously.

At the end of twenty-four hours I expect to find the membrane beginning to shrivel and curl up at the edges. In any event, however, I administer a second injection at this stage of the disease, and in a majority of instances this is sufficient. I advise very strongly that the second injection be given in all cases where the diagnosis of diphtheria is clear. I do not expect a cure from one injection, and rarely omit the second. If the symptoms do not indicate the beginning of convalescence at the end of forty-eight hours, I give a third injection. In fact, I would use a fourth injection if it seemed advisable at the end of another twenty-four hours, but I think this will rarely be found necessary.

I have not used anti-streptococcic serum, but I am convinced that in cases in which the treatment has been delayed, or in cases showing the streptococcic infection, proven by bacteriological investigation or from the peculiar red zone of inflammation which begins to spread from the margin of the diphtheritic process, the anti-streptococcic serum should promptly be used. Not only would I do this, but in cases of severe acute disease in the throat, which present all the symptoms of diphtheria, but where the bacteriological report does not confirm the diagnosis, I would resort to the anti-streptococcic serum. In fact, if I should have a case of diphtheria in which the membrane does not begin to peel up by the end of the twenty-four hours following, say, the second injection of antitoxin, I will use the anti-streptococcic serum.

The importance of a fresh, reliable, highly concentrated serum must not be lost sight of, and as I have full confidence in our American products I do not use imported serums. I have used several serums, but have been best satisfied with the effects of that sent out from the biological department of Parke, Davis & Co. I heartily approve of the way this firm now puts up the serum, in bulbs instead of in bottles. It is not only highly concentrated, but, being hermetically sealed, should keep indefinitely. It is put up in bulbs of so many units, 250, 500, 1,000, 1,500; and, each bulb being a dose, there is no temptation to use a serum that has been exposed to the atmosphere. I append a table giving a report in detail of the last seven cases treated in private families.

TABULAR REPORT OF CASES.

	1	2	3	4	5	6	7
Age of patient	8 years.	2 years.	2 years.	11 years.	3 years.	3 years.	8 years.
Other cases in family	.....	.....	.....	.....	.....	Yes.	.....
Bacteriological cultures	Yes.	Yes.	.....	Yes.	Yes.	.....	Yes.
After first appearance of the disease antitoxin was given	1st day.	1st day.	3d day.	2d day.	2d day.	2d day.	3d day.
Doses of antitoxin given	3	2	2	3	3	2	3
Units in each injection	1500 1000 1000	1500	1500	1000	1500	1500	1500
Total number of units in each case	3500	3000	3000	3000	4500	3000	4500
Antitoxin used	Gibier	B of H	B of H	P D & Co	P D & Co	P D & Co	P D & Co
Intubation	1st day.	.....	.....	.....	2d day.	.....	.....
Tube retained	3½ days.	.....	.....	.....	2½ days.	.....	.....
Recovery	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.

As to the medicinal treatment, I do not give any drug with the idea of influencing the course of the disease. I treat the conditions as they arise symptomatically. If I have evidence of the absorption of poisonous secretions, and a coated tongue, I give calomel tablet triturates, ¼ grain every hour, until the bowels move freely. Alcohol is rarely needed in cases receiving the serum treatment, especially if it is used early enough, whereas, under the old treatment, when we were so apt to find profound toxic symptoms, alcohol was more often needed. It is perhaps well to state here that I prefer fluid nourishment, principally milk, during the course of disease.—*Pediatrics, October 15, 1896.*

Henry's Three Chlorides.—The adjuvant to iodides is a corrector of acute iodism, coryza, gastritis, conjunctivitis and rarer symptoms.

Asthma.—The bromides, belladonna and cannabis indica have been and still are the sheet anchors in this common and distressing malady. Trousseau and others after him was wont to push belladonna to the limit of toleration in asthma, and thus secured results equaled by no one of his time. A combination of these always efficient agents in NEUROSINE has in this disease given more satisfactory results than any other known remedy.

Spermatorrhœa.—Self-abuse, sexual neurasthenia, etc. The results in this class of cases, annoying alike to physician and patient, are well expressed by a physician eminent in his work who says: "Your NEUROSINE has given me at least satisfactory results which will warrant me in a further use of it."

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